



Combined Safety Data Sheets (SDS / MSDS)

All 23 Product Grades — ST Line, ST PLUS Line, STT Line, GT Motor, HYD, ATF, GEAR

KHAL Lubricants Factory — Research & Development Centre

Erbil, Kurdistan Region, Iraq

24-Hour Emergency Telephone: +964 750 408 5151

Document Revision: 1.0

Revision Date: 14 July 2026

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AXOOIL ST Line SAE 20W-50

Passenger Car Engine Oil (Mineral) | API SG | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST Line SAE 20W-50
Product Line	ST Line
Viscosity Grade	SAE 20W-50
Performance Specification	API SG
Manufacturer Reference No.	011011544
Recommended Use	Petrol (spark-ignition) passenger car and light commercial vehicle engine lubrication
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (mineral), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional-SAPS PCMO additive package for gasoline and light-duty diesel engines
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 20W-50
Kinematic Viscosity @ 100°C	19.5 mm ² /s (cSt), typical
Flash Point (COC), °C	212 (typical)
Pour Point, °C	-27 (typical)
Density @ 15°C, g/cm ³	0.89 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST Line SAE 15W-40

Passenger Car Engine Oil (Mineral) | API SG | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST Line SAE 15W-40
Product Line	ST Line
Viscosity Grade	SAE 15W-40
Performance Specification	API SG
Manufacturer Reference No.	011011544
Recommended Use	Petrol (spark-ignition) passenger car and light commercial vehicle engine lubrication
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (mineral), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional-SAPS PCMO additive package for gasoline and light-duty diesel engines
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 15W-40
Kinematic Viscosity @ 100°C	14.5 mm ² /s (cSt), typical
Flash Point (COC), °C	210 (typical)
Pour Point, °C	-27 (typical)
Density @ 15°C, g/cm ³	0.89 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST Line SAE 10W-40

Passenger Car Engine Oil (Mineral) | API SL | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST Line SAE 10W-40
Product Line	ST Line
Viscosity Grade	SAE 10W-40
Performance Specification	API SL
Manufacturer Reference No.	011011544
Recommended Use	Petrol (spark-ignition) passenger car and light commercial vehicle engine lubrication
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (mineral), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional-SAPS PCMO additive package covering standard drain-interval needs
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 10W-40
Kinematic Viscosity @ 100°C	14 mm ² /s (cSt), typical
Flash Point (COC), °C	205 (typical)
Pour Point, °C	-27 (typical)
Density @ 15°C, g/cm ³	0.875 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST Line SAE 10W-30

Passenger Car Engine Oil (Mineral) | API SL | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST Line SAE 10W-30
Product Line	ST Line
Viscosity Grade	SAE 10W-30
Performance Specification	API SL
Manufacturer Reference No.	011011544
Recommended Use	Petrol (spark-ignition) passenger car and light commercial vehicle engine lubrication
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (mineral), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional-SAPS PCMO additive package covering standard drain-interval needs
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 10W-30
Kinematic Viscosity @ 100°C	10.5 mm ² /s (cSt), typical
Flash Point (COC), °C	200 (typical)
Pour Point, °C	-30 (typical)
Density @ 15°C, g/cm ³	0.86 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST Line SAE 5W-30

Passenger Car Engine Oil (Mineral) | API SL | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST Line SAE 5W-30
Product Line	ST Line
Viscosity Grade	SAE 5W-30
Performance Specification	API SL
Manufacturer Reference No.	011011544
Recommended Use	Petrol (spark-ignition) passenger car and light commercial vehicle engine lubrication
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (mineral), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional-SAPS PCMO additive package covering standard drain-interval needs
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 5W-30
Kinematic Viscosity @ 100°C	9.0 mm ² /s (cSt), typical
Flash Point (COC), °C	200 (typical)
Pour Point, °C	-33 (typical)
Density @ 15°C, g/cm ³	0.86 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 0W-16

Passenger Car Engine Oil (Fully Synthetic) | API SP, SP Plus, ILSAC GF-6B | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 0W-16
Product Line	ST PLUS Line
Viscosity Grade	SAE 0W-16
Performance Specification	API SP, SP Plus, ILSAC GF-6B
Manufacturer Reference No.	011011544
Recommended Use	Modern fuel-efficient, hybrid, and downsized turbocharged petrol engines requiring an ultra-low-viscosity fully synthetic oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: top-tier PCMO additive package meeting dexos1 Gen2, API SN Plus RC/SP RC and ILSAC GF-6A/6B, with LSPI and turbocharger protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 0W-16
Kinematic Viscosity @ 100°C	5.0 mm ² /s (cSt), typical
Flash Point (COC), °C	230 (typical)
Pour Point, °C	-45 (typical)
Density @ 15°C, g/cm ³	0.850 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 0W-20

Passenger Car Engine Oil (Fully Synthetic) | API SN PLUS, ILSAC GF-5A | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 0W-20
Product Line	ST PLUS Line
Viscosity Grade	SAE 0W-20
Performance Specification	API SN PLUS, ILSAC GF-5A
Manufacturer Reference No.	011011544
Recommended Use	Modern fuel-efficient petrol engines requiring a low-viscosity, resource-conserving fully synthetic oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: top-tier PCMO additive package meeting dexos1 Gen2, API SN Plus RC/SP RC and ILSAC GF-6A/6B, with LSPI and turbocharger protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 0W-20
Kinematic Viscosity @ 100°C	8.0 mm ² /s (cSt), typical
Flash Point (COC), °C	225 (typical)
Pour Point, °C	-42 (typical)
Density @ 15°C, g/cm ³	0.852 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 5W-20

Passenger Car Engine Oil (Fully Synthetic) | API SN PLUS (SN-RC), ILSAC GF-5A | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 5W-20
Product Line	ST PLUS Line
Viscosity Grade	SAE 5W-20
Performance Specification	API SN PLUS (SN-RC), ILSAC GF-5A
Manufacturer Reference No.	011011544
Recommended Use	Modern petrol engines, with or without turbocharging/direct injection, requiring a fuel-economy fully synthetic oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: top-tier PCMO additive package meeting dexos1 Gen2, API SN Plus RC/SP RC and ILSAC GF-6A/6B, with LSPI and turbocharger protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 5W-20
Kinematic Viscosity @ 100°C	9.0 mm ² /s (cSt), typical
Flash Point (COC), °C	220 (typical)
Pour Point, °C	-42 (typical)
Density @ 15°C, g/cm ³	0.855 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 5W-30

Passenger Car Engine Oil (Fully Synthetic) | API SN PLUS, ILSAC GF-5A | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 5W-30
Product Line	ST PLUS Line
Viscosity Grade	SAE 5W-30
Performance Specification	API SN PLUS, ILSAC GF-5A
Manufacturer Reference No.	011011544
Recommended Use	Modern gasoline-powered passenger vehicles requiring a fully synthetic, fuel-efficient oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: top-tier PCMO additive package meeting dexos1 Gen2, API SN Plus RC/SP RC and ILSAC GF-6A/6B, with LSPI and turbocharger protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 5W-30
Kinematic Viscosity @ 100°C	10 mm ² /s (cSt), typical
Flash Point (COC), °C	225 (typical)
Pour Point, °C	-39 (typical)
Density @ 15°C, g/cm ³	0.858 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 5W-40

Passenger Car Engine Oil (Fully Synthetic) | API SN | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 5W-40
Product Line	ST PLUS Line
Viscosity Grade	SAE 5W-40
Performance Specification	API SN
Manufacturer Reference No.	011011544
Recommended Use	Modern petrol and diesel passenger car engines requiring a high-performance fully synthetic oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: mid-SAPS PCMO additive package meeting ACEA C2/C3, API SP and major European OEM approvals (BMW LL-04, MB 228.51/229.52)
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 5W-40
Kinematic Viscosity @ 100°C	10 mm ² /s (cSt), typical
Flash Point (COC), °C	220 (typical)
Pour Point, °C	-36 (typical)
Density @ 15°C, g/cm ³	0.859 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ST PLUS Line SAE 10W-30

Passenger Car Engine Oil (Fully Synthetic) | API SN | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ST PLUS Line SAE 10W-30
Product Line	ST PLUS Line
Viscosity Grade	SAE 10W-30
Performance Specification	API SN
Manufacturer Reference No.	011011544
Recommended Use	Modern gasoline-powered passenger vehicles requiring a fully synthetic oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this passenger car engine oil (fully synthetic), the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: ≥90% saturates, <0.03% sulfur, VI ≥120); marketed as "fully synthetic" / "synthetic technology" base stock

Property	Typical Value
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: top-tier PCMO additive package meeting dexos1 Gen2, API SN Plus RC/SP RC and ILSAC GF-6A/6B, with LSPI and turbocharger protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, pale yellow to amber liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 10W-30
Kinematic Viscosity @ 100°C	11 mm ² /s (cSt), typical
Flash Point (COC), °C	215 (typical)
Pour Point, °C	-36 (typical)
Density @ 15°C, g/cm ³	0.862 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL STT Line SAE 20W-50

Heavy-Duty Diesel Engine Oil | API CH-4 | Group II base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL STT Line SAE 20W-50
Product Line	STT Line
Viscosity Grade	SAE 20W-50
Performance Specification	API CH-4
Manufacturer Reference No.	011011544
Recommended Use	Heavy-duty, turbocharged and naturally aspirated diesel engines operated under severe, high-temperature and high-load duty cycles
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this heavy-duty diesel engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group II — Hydrotreated paraffinic mineral base oil (API Group II: ≥90% saturates, <0.03% sulfur, VI 80-119); improved oxidation stability and clarity versus Group I
Base oil CAS No.	64742-54-7 (Distillates, petroleum, hydrotreated heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: cascable heavy-duty diesel engine oil (HDEO) additive package, API CH-4 through CI-4
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 20W-50
Kinematic Viscosity @ 100°C	19 mm ² /s (cSt), typical
Flash Point (COC), °C	225 (typical)
Pour Point, °C	-24 (typical)
Density @ 15°C, g/cm ³	0.892 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group II base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL STT Line SAE 15W-40

Heavy-Duty Diesel Engine Oil | API CH-4 | Group II base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL STT Line SAE 15W-40
Product Line	STT Line
Viscosity Grade	SAE 15W-40
Performance Specification	API CH-4
Manufacturer Reference No.	011011544
Recommended Use	Heavy-duty, turbocharged and naturally aspirated diesel engines operated under severe duty cycles
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this heavy-duty diesel engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group II — Hydrotreated paraffinic mineral base oil (API Group II: ≥90% saturates, <0.03% sulfur, VI 80-119); improved oxidation stability and clarity versus Group I
Base oil CAS No.	64742-54-7 (Distillates, petroleum, hydrotreated heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: cascable heavy-duty diesel engine oil (HDEO) additive package, API CH-4 through CI-4
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 15W-40
Kinematic Viscosity @ 100°C	16 mm ² /s (cSt), typical
Flash Point (COC), °C	220 (typical)
Pour Point, °C	-27 (typical)
Density @ 15°C, g/cm ³	0.888 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group II base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL STT Line SAE HD-50

Heavy-Duty Diesel Engine Oil | API CH-4 | Group II base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL STT Line SAE HD-50
Product Line	STT Line
Viscosity Grade	SAE HD-50
Performance Specification	API CH-4
Manufacturer Reference No.	011011544
Recommended Use	Heavy-duty diesel engines operated under extreme temperature and high-load conditions requiring a monograde oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this heavy-duty diesel engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group II — Hydrotreated paraffinic mineral base oil (API Group II: ≥90% saturates, <0.03% sulfur, VI 80-119); improved oxidation stability and clarity versus Group I
Base oil CAS No.	64742-54-7 (Distillates, petroleum, hydrotreated heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: cascable heavy-duty diesel engine oil (HDEO) additive package, API CH-4 through CI-4
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE HD-50
Kinematic Viscosity @ 100°C	21 mm ² /s (cSt), typical
Flash Point (COC), °C	225 (typical)
Pour Point, °C	-21 (typical)
Density @ 15°C, g/cm ³	0.893 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group II base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL STT Line SAE HD-60

Heavy-Duty Diesel Engine Oil | API CD | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL STT Line SAE HD-60
Product Line	STT Line
Viscosity Grade	SAE HD-60
Performance Specification	API CD
Manufacturer Reference No.	011011544
Recommended Use	Heavy-duty diesel engines operated under extreme temperature and high-load conditions requiring an extra-heavy monograde oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this heavy-duty diesel engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional monograde heavy-duty diesel engine oil additive technology suited to older API CD-level engines
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE HD-60
Kinematic Viscosity @ 100°C	24 mm ² /s (cSt), typical
Flash Point (COC), °C	222 (typical)
Pour Point, °C	-21 (typical)
Density @ 15°C, g/cm ³	0.893 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL STT Line SAE HD-70

Heavy-Duty Diesel Engine Oil | API CD | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL STT Line SAE HD-70
Product Line	STT Line
Viscosity Grade	SAE HD-70
Performance Specification	API CD
Manufacturer Reference No.	011011544
Recommended Use	Heavy-duty diesel engines operated under extreme temperature and high-load conditions requiring an extra-heavy monograde oil
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this heavy-duty diesel engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: conventional monograde heavy-duty diesel engine oil additive technology suited to older API CD-level engines
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE HD-70
Kinematic Viscosity @ 100°C	31 mm ² /s (cSt), typical
Flash Point (COC), °C	220 (typical)
Pour Point, °C	-24 (typical)
Density @ 15°C, g/cm ³	0.89 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL GT Motor SAE 10W-40

4-Stroke Motorcycle Engine Oil | API SN, JASO MA-2 | Group II/III blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL GT Motor SAE 10W-40
Product Line	GT Motor
Viscosity Grade	SAE 10W-40
Performance Specification	API SN, JASO MA-2
Manufacturer Reference No.	011011544
Recommended Use	Four-stroke motorcycle engines, including models with wet clutch systems
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this 4-stroke motorcycle engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group II/III blend — Blend of hydrotreated (Group II) and hydrocracked/hydroisomerized (Group III) paraffinic base oils for enhanced oxidation stability and low-temperature performance

Property	Typical Value
Base oil CAS No.	64742-54-7 (Group II) and 72623-87-1 (Group III) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: main-tier four-stroke motorcycle engine oil additive package for wet-clutch applications, suitable with Group II, III or II/III base oil blends
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 10W-40
Kinematic Viscosity @ 100°C	14 mm ² /s (cSt), typical
Flash Point (COC), °C	210 (typical)
Pour Point, °C	-30 (typical)
Density @ 15°C, g/cm ³	0.87 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group II/III blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL GT Motor SAE 20W-50

4-Stroke Motorcycle Engine Oil | API SL, JASO MA/MA-2 | Group II base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL GT Motor SAE 20W-50
Product Line	GT Motor
Viscosity Grade	SAE 20W-50
Performance Specification	API SL, JASO MA/MA-2
Manufacturer Reference No.	011011544
Recommended Use	Four-stroke motorcycle engines, including models with wet clutch systems
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this 4-stroke motorcycle engine oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group II — Hydrotreated paraffinic mineral base oil (API Group II: ≥90% saturates, <0.03% sulfur, VI 80-119); improved oxidation stability and clarity versus Group I

Property	Typical Value
Base oil CAS No.	64742-54-7 (Distillates, petroleum, hydrotreated heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: four-stroke motorcycle engine oil additive package delivering enhanced wear protection and oxidation/nitration control
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 20W-50
Kinematic Viscosity @ 100°C	18 mm ² /s (cSt), typical
Flash Point (COC), °C	215 (typical)
Pour Point, °C	-24 (typical)
Density @ 15°C, g/cm ³	0.885 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group II base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL HYD Hydraulic HLP 68

Hydraulic Oil | DIN 51524-2 (HLP) | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL HYD Hydraulic HLP 68
Product Line	HYD
Viscosity Grade	ISO VG 68
Performance Specification	DIN 51524-2 (HLP)
Manufacturer Reference No.	011011544
Recommended Use	Industrial and mobile hydraulic systems requiring an anti-wear (HLP) hydraulic fluid
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this hydraulic oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: ashless multifunctional anti-wear additive suited to hydraulic and gear applications
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	ISO VG 68
Kinematic Viscosity @ 100°C	7 mm ² /s (cSt), typical
Flash Point (COC), °C	215 (typical)
Pour Point, °C	-33 (typical)
Density @ 15°C, g/cm ³	0.876 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL HYD Hydraulic HLP 46

Hydraulic Oil | DIN 51524-2 (HLP) | Group I/II blend base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL HYD Hydraulic HLP 46
Product Line	HYD
Viscosity Grade	ISO VG 46
Performance Specification	DIN 51524-2 (HLP)
Manufacturer Reference No.	011011544
Recommended Use	Industrial and mobile hydraulic systems requiring an anti-wear (HLP) hydraulic fluid
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this hydraulic oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I/II blend — Blend of solvent-refined (Group I) and hydrotreated (Group II) paraffinic mineral base oils, selected for a balance of cost and performance (VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Group I) and 64742-54-7 (Group II) — blend ratio proprietary
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: ashless multifunctional anti-wear additive suited to hydraulic and gear applications
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	ISO VG 46
Kinematic Viscosity @ 100°C	5 mm ² /s (cSt), typical
Flash Point (COC), °C	210 (typical)
Pour Point, °C	-36 (typical)
Density @ 15°C, g/cm ³	0.872 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I/II blend base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL ATF Dexron III

Automatic Transmission Fluid | GM Dexron III | Group III base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL ATF Dexron III
Product Line	ATF
Viscosity Grade	ATF
Performance Specification	GM Dexron III
Manufacturer Reference No.	011011544
Recommended Use	Automatic transmissions, power steering systems, and other applications specifying a Dexron III fluid
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this automatic transmission fluid, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)

Property	Typical Value
Base oil group	Group III — Hydrocracked / hydroisomerized paraffinic base oil (API Group III: $\geq 90\%$ saturates, $< 0.03\%$ sulfur, VI ≥ 120); marketed as "fully synthetic" / "synthetic technology" base stock
Base oil CAS No.	72623-87-1 (Lubricating oils, petroleum, hydrotreated heavy paraffinic, hydrocracked/hydroisomerized)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: automatic transmission fluid additive package suitable for Dexron IIIH, Mercon, and Allison C-4 applications, with long-life friction modifiers
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients $\geq 1\%$	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, red liquid (dyed)
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	ATF
Kinematic Viscosity @ 100°C	7 mm ² /s (cSt), typical
Flash Point (COC), °C	195 (typical)
Pour Point, °C	-45 (typical)
Density @ 15°C, g/cm ³	0.860 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group III base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL GEAR SAE 140W

Automotive Gear Oil | API GL-4 | Group I base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL GEAR SAE 140W
Product Line	GEAR
Viscosity Grade	SAE 140W
Performance Specification	API GL-4
Manufacturer Reference No.	011011544
Recommended Use	Manual transmissions and transaxles specifying an API GL-4 gear lubricant
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this automotive gear oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I — Solvent-refined / solvent-dewaxed paraffinic mineral base oil (API Group I: <90% saturates and/or ≥0.03% sulfur, VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Distillates, petroleum, solvent-refined heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: sulfur-phosphorus extreme-pressure (EP) gear oil additive technology providing gear wear, rust, and corrosion protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 140W
Kinematic Viscosity @ 100°C	20 mm ² /s (cSt), typical
Flash Point (COC), °C	220 (typical)
Pour Point, °C	-15 (typical)
Density @ 15°C, g/cm ³	0.900 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.

AXOOIL GEAR SAE 90W

Automotive Gear Oil | API GL-4 | Group I base oil + Chevron Oronite OLOA®

SECTION 1: IDENTIFICATION

Product Name	AXOOIL GEAR SAE 90W
Product Line	GEAR
Viscosity Grade	SAE 90W
Performance Specification	API GL-4
Manufacturer Reference No.	011011544
Recommended Use	Manual transmissions and transaxles specifying an API GL-4 gear lubricant
Uses Advised Against	Not for use as a food-grade lubricant, medicinal, or cosmetic product. Not for pharmaceutical or personal-care applications.
Manufacturer	KHAL Lubricants Factory — Research & Development Centre, Temmar Industrial Area, Erbil, Kurdistan Region, Iraq
Emergency Telephone	KHAL Lubricants Factory (24 hr): +964 771 408 5151 CHEMTREC (international transport emergency, 24 hr.

SECTION 2: HAZARD(S) IDENTIFICATION

Based on available data for highly refined (severely hydrotreated/solvent-refined) mineral base oils and the additive package used in this automotive gear oil, the fresh, unused product is not classified as hazardous under the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

GHS Classification

Not classified as a hazardous substance or mixture under GHS criteria (health, physical, or environmental hazard classes) based on the composition and physical/chemical properties of this product.

Label Elements

No GHS pictogram, signal word, or hazard statement is required for the fresh product. As a matter of good practice, the following precautionary information is nonetheless recommended on secondary containers:

- Avoid prolonged or repeated contact with skin.
- Avoid contact with eyes.
- Keep out of reach of children.
- Do not discharge into drains, soil, or watercourses.

Other Hazards

Used oil may contain contaminants (combustion by-products, wear metals) generated during service and should be handled with greater caution than the fresh product. This material does not meet the criteria for PBT (Persistent, Bioaccumulative, Toxic) or vPvB (very Persistent, very Bioaccumulative) substances.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This product is a mixture of a mineral base oil and a proprietary performance additive package supplied by Chevron Oronite Company LLC. Exact blend ratios and treat rates are considered proprietary/a trade secret and are withheld in accordance with standard SDS confidentiality provisions.

Property	Typical Value
Substance type	Mixture (mineral base oil + Chevron Oronite performance additive package)
Base oil group	Group I — Solvent-refined / solvent-dewaxed paraffinic mineral base oil (API Group I: <90% saturates and/or ≥0.03% sulfur, VI 80-119)

Property	Typical Value
Base oil CAS No.	64741-88-4 (Distillates, petroleum, solvent-refined heavy paraffinic)
Base oil content	Typically 75 - 90% w/w
Additive supplier / package	Chevron Oronite Company LLC — OLOA®: sulfur-phosphorus extreme-pressure (EP) gear oil additive technology providing gear wear, rust, and corrosion protection
Additive composition	Proprietary mixture; may include detergents (calcium/magnesium sulfonate or phenate), ashless dispersants, anti-wear agents (e.g., ZDDP), antioxidants, corrosion inhibitors, defoamants, and, where applicable, viscosity-index improvers, pour-point depressants, friction modifiers, or EP (sulfur-phosphorus) agents — exact CAS Nos. are Confidential Business Information (CBI) held by the additive supplier
Additive package content	Typically 10 - 25% w/w
Hazardous ingredients ≥1%	None requiring individual disclosure under GHS at the concentrations present

SECTION 4: FIRST-AID MEASURES

Inhalation

Not normally required under conditions of intended use. If oil mist or vapor is inhaled and irritation occurs, remove the affected person to fresh air and keep at rest. Seek medical attention if symptoms persist.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation, redness, or a rash develops, seek medical attention. Do not use solvents or thinners to clean skin.

Eye Contact

Flush immediately with plenty of clean water for at least 15 minutes, holding the eyelids open. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

Ingestion

Do NOT induce vomiting because of the risk of aspiration into the lungs. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to Physician

Aspiration into the lungs during ingestion or vomiting may cause chemical pneumonitis, which can be fatal. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Carbon dioxide (CO₂), dry chemical powder, foam, or water fog/spray.

Unsuitable Extinguishing Media

Do not use a solid/straight water jet, as it may scatter and spread the fire.

Specific Hazards

This product will burn if involved in a fire but is not classified as flammable or readily ignitable under normal ambient conditions given its flash point (see Section 9). Combustion may generate carbon monoxide, carbon dioxide, smoke, and irritant/toxic fumes.

Fire-Fighter Protection

Wear full protective clothing and a self-contained breathing apparatus (SCBA) operated in positive-pressure mode. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Eliminate sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear appropriate PPE (see Section 8). Beware of slip hazards from spilled product.

Environmental Precautions

Prevent the product from entering drains, sewers, watercourses, or soil. Contain the spill using bunding, absorbent booms, or an inert absorbent material. Notify local authorities if a significant release occurs.

Methods for Containment and Clean-Up

Absorb with sand, earth, or a proprietary inert absorbent. Sweep or shovel into a suitable, labeled container for disposal in accordance with Section 13. Clean the affected area with a suitable detergent; avoid the use of solvents that may spread contamination.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Handle in well-ventilated areas. Avoid prolonged or repeated skin contact; use barrier cream or gloves. Avoid generating or breathing oil mist. Keep away from open flames, sparks, and other ignition sources. Wash hands thoroughly after handling.

Conditions for Safe Storage

Store in tightly closed, clearly labeled containers in a cool, dry, well-ventilated area away from direct sunlight, sources of ignition, oxidizing agents, and food/feed products, within an approximate temperature range of 0°C to 45°C. Keep containers upright to prevent leakage. Store away from strong oxidizers. Observe FIFO (first-in, first-out) stock rotation.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure Limits**

No specific occupational exposure limit (OEL) has been established for this formulated product. As a reference, many jurisdictions apply an exposure limit for mineral oil mist (as sampled) of 5 mg/m³ (TWA, 8-hour) — consult local regulations for the applicable limit.

Engineering Controls

Use local exhaust ventilation where mist or vapor may be generated (e.g., spraying, high-speed mixing). General room ventilation is normally adequate for routine handling.

Personal Protective Equipment

- Eye/Face Protection: Safety glasses with side shields or chemical splash goggles where splashing is possible.
- Skin Protection: Oil-resistant gloves (e.g., nitrile) and protective clothing to minimize skin contact.
- Respiratory Protection: Not normally required under conditions of intended use with adequate ventilation. If mist levels exceed applicable exposure limits, use an approved respirator fitted with an organic-vapor/particulate cartridge.
- Other: Eyewash station and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Value
Appearance	Clear, amber to red liquid
Odor	Mild, characteristic mineral-oil odor
Viscosity Grade	SAE 90W
Kinematic Viscosity @ 100°C	15 mm ² /s (cSt), typical
Flash Point (COC), °C	210 (typical)
Pour Point, °C	-21 (typical)
Density @ 15°C, g/cm ³	0.895 (typical)
Solubility in Water	Negligible / insoluble
pH	Not applicable (not water-miscible)
Auto-ignition Temperature	> 300°C (typical for mineral-oil-based lubricants)

Note: Values marked "typical" are representative of this product class and are provided for general guidance only; they should not be used as a product specification. Refer to the corresponding AXOOIL Technical Data Sheet or Certificate of Analysis for batch-specific figures.

SECTION 10: STABILITY AND REACTIVITY

Reactivity / Chemical Stability

Stable under normal conditions of storage, handling, and use. No hazardous polymerization is expected.

Conditions to Avoid

Excessive heat, open flames, sparks, and other ignition sources. Avoid contact with strong oxidizing agents.

Incompatible Materials

Strong oxidizing agents (e.g., chlorates, nitrates, peroxides), strong acids and alkalis.

Hazardous Decomposition Products

Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, smoke, and a complex mixture of oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Based on data for similar highly refined mineral-oil-based lubricants: Oral LD50 (rat) is estimated to be greater than 5,000 mg/kg; Dermal LD50 (rabbit) is estimated to be greater than 2,000 mg/kg. Not classified as acutely toxic.

Irritation / Corrosion

Not expected to be irritating to skin or eyes under conditions of intended use. Prolonged or repeated skin contact may cause mild irritation, defatting, or dermatitis.

Sensitization

Not expected to be a skin or respiratory sensitizer based on available data for similar products.

Carcinogenicity

The mineral base oils used in this product are highly refined and meet the IP 346 criterion of less than 3% DMSO extract; they are considered not classifiable as a human carcinogen (IARC Group 3) and do not carry a cancer warning under this classification scheme.

Aspiration Hazard

May be harmful if swallowed and enters the airways — see Section 4, First-Aid Measures, regarding the risk from vomiting/aspiration.

Reproductive / STOT

Not classified as a reproductive toxicant or a specific target-organ toxicant based on available data for similar mineral-oil-based lubricants.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Not expected to be acutely toxic to aquatic organisms based on data for similar mineral-oil-based products; however, the product should not be allowed to enter watercourses, drains, or soil.

Persistence and Degradability

The mineral base oil component is not readily biodegradable but is considered inherently biodegradable.

Bioaccumulative Potential

Contains components with the potential to bioaccumulate; log Kow data for base oil components is generally high.

Mobility in Soil

Low water solubility; the product will tend to adsorb to soil and sediment rather than leach or disperse in water.

Other Adverse Effects

A surface film may form on water, which can physically affect the gas exchange of aquatic organisms and waterfowl.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not dispose of in drains, watercourses, or with general municipal waste. Collect used oil and dispose of, or arrange recycling, through a licensed waste-oil handler or recycler in accordance with applicable local, regional, and national regulations. Contaminated packaging should be drained and disposed of in the same manner as the product, or recycled where facilities exist. Do not cut, weld, drill, or expose empty containers to heat or flame, as residues may present a fire hazard.

SECTION 14: TRANSPORT INFORMATION

Property	Typical Value
UN Number	Not regulated for transport (fresh product, bulk/packaged, under normal ambient conditions)
UN Proper Shipping Name	Not applicable
Transport Hazard Class(es)	Not applicable
Packing Group	Not applicable
Environmental Hazards	Not classified as a marine pollutant
Special Precautions	Ensure containers are secured and upright during transport to prevent leakage

This assessment applies to the packaged/bulk fresh product under normal conditions of carriage by road, rail, sea (IMDG), and air (IATA). Bulk shipments and used-oil transport may be subject to additional local regulatory requirements — verify current classification before shipment.

SECTION 15: REGULATORY INFORMATION

This product should be handled and stored in accordance with applicable national and local chemical, occupational health and safety, and environmental regulations in the country of use, including the regulations of the Kurdistan Region of Iraq and the Republic of Iraq. Users are responsible for determining and complying with all regulations applicable to the storage, handling, transport, and disposal of this product in their jurisdiction.

SECTION 16: OTHER INFORMATION

Prepared By	KHAL Lubricants Factory — Research & Development Centre
Revision Date	14 July 2026
Revision Number	1.0
Supersedes	None (initial issue)

Disclaimer: This Safety Data Sheet has been compiled combining (a) the viscosity/performance-specification information published in the AXOOIL product catalogue, (b) KHAL Lubricants Factory's stated raw-material sourcing — API Group I base oil and a Chevron Oronite OLOA® additive package — and (c) generic hazard, physical, and regulatory data standard for highly refined mineral-oil-based lubricants of this base-oil group and additive class, referenced against publicly available Chevron Oronite product literature and industry-standard SDS data for comparable products. The specific base-oil supplier grade, exact additive treat rate, and batch-level physical data have not been independently confirmed against KHAL's actual formulation records or Chevron Oronite's own additive SDS. This document does not replace a formal SDS validated by KHAL Lubricants Factory's QA/EHS function against the true raw-material composition and the additive supplier's own SDS, in accordance with GHS/UN regulations and the destination country's requirements. Please have this document reviewed by a qualified EHS professional, with confirmation from Chevron Oronite's SDS for the specific OLOA® package used, prior to official distribution or regulatory submission.