



HIGH PERFORMANCE OILS & GREASES

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Canadian WHMIS 2015, OSHA 2012

Heat Transfer oil

Revision date 21-Aug-2020

Revision Number 1

1. Identification

Product identifier

Product Name Heat Transfer oil

Other means of identification

Product Code(s) 650

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Lubricant

Restrictions on use No information available

Details of the supplier of the safety data sheet

Initial Supplier Identifier

AXEL Royal, LLC
516 S. 25th West Ave
Tulsa, OK 74127
United States
918 584 2671

Supplier address

AXEL Royal, LLC
516 S. 25th West Ave
Tulsa, OK 74127
United States
918 584 2671

Emergency telephone number

ChemTel Emergency telephone 1-800-255-3924

International Emergency telephone +01-813-248-0585

2. Hazard(s) identification

Classification

Not classified.

Label elements

Not classified.

Other information

Unknown acute toxicity

Not applicable

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Ingredient comments The mineral oils in the product contain <3% DMSO-extract (IP 346).

4. First-aid measures**Description of first aid measures**

Inhalation Move to fresh air in case of accidental inhalation of vapors.

Eye contact Rinse thoroughly with plenty of water, also under the eyelids.

Skin contact Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures**Suitable extinguishing media**

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Special exposure hazards in a fire

Specific hazards arising from the chemical Fire may produce irritating, corrosive and/or toxic gases.

Hazardous combustion products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

Protective equipment and precautions for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Personal precautions Extremely slippery when spilled. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Use personal protective equipment as required.

For emergency responders Use personal protection recommended in Section 8.

Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use personal protective equipment as required. Take up with sand or other noncombustible absorbent material and place into containers for later disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
Reference to other sections	See section 8 for more information. See section 13 for more information.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation. Avoid contact with eyes and prolonged or repeated contact with skin.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep at a temperature not exceeding 45 °C.
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8. Exposure controls/personal protection

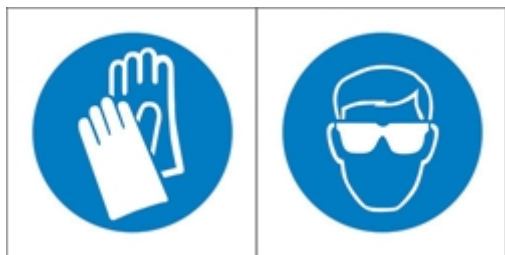
Control parameters

Exposure Limits	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
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Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems
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Individual protection measures, such as personal protective equipment



Hand protection	Wear protective nitrile rubber gloves, Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	No special protective equipment required.
Respiratory protection	None under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory

protection must be provided in accordance with current local regulations.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	No information available
Odor	No information available
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point / freezing point		No information available
Boiling point / boiling range		No information available
Flash point	> 93.5 °C / > 200.3 °F	ASTM D92
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		No information available
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure		No information available
Vapor density		No information available
Relative density		No information available
Water solubility	Insoluble in water	No information available
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity	> 20.5 mm ² /s	@ 40 °C
Dynamic viscosity		No information available

Other information

Explosive properties	None under normal use conditions
Oxidizing properties	No information available
VOC Content (%)	0
Liquid Density	< 1000 kg/m ³ @ 25 °C / 77 °F

10. Stability and reactivity

Reactivity

Reactivity	Stable.
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Chemical stability

Stability	Stable under normal conditions.
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Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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Hazardous polymerization	Hazardous polymerization does not occur.
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Conditions to avoid

Conditions to avoid	Excessive heat.
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Incompatible materials

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products None under normal use conditions.

11. Toxicological information

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Inhalation	Not an expected route of exposure. Specific test data for the substance or mixture is not available.
Eye contact	Not expected to cause eye irritation.
Skin contact	Non-irritating during normal use. Prolonged or repeated contact may dry skin and cause irritation.
Ingestion	No known hazard by swallowing. May cause gastrointestinal discomfort if consumed in large amounts.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	15,338.40 mg/kg
ATEmix (dermal)	5,112.80 mg/kg

Unknown acute toxicity
Not applicable.

Component Information**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT - single exposure	Based on available data, the classification criteria are not met.
STOT - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Persistence and degradability

Persistence and degradability Not readily biodegradable.

Bioaccumulative potential

Bioaccumulation No information available.

Mobility

Mobility in soil After release, adsorbs onto soil.

Mobility Insoluble in water.

Other adverse effects

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with federal, state and local regulations. Should not be released into the environment. Use personal protection recommended in Section 8.

Contaminated packaging Dispose of in accordance with federal, state and local regulations.

Other information Waste codes should be assigned by the user based on the application for which the product was used

14. Transport information

DOT

Not regulated

TDG

No information available

MEX

No information available

ICAO (air)

Not regulated

IATA

Not regulated

IMDG

Not regulated

RID

Not regulated

ADR

Not regulated

ADN

Not regulated

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	-
REACH	Contact supplier for inventory compliance status
ENCS	-
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	-
TSCI	-

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
REACH - Registration, Evaluation, Authorization, and Restriction of Chemicals Regulation (EC 1907/2006)
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TSCI - Taiwan Chemical Substance Inventory

US Federal Regulations

SARA 313	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
SARA 311/312 Hazard Categories	Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.
CWA (Clean Water Act)	This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).
CERCLA	This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability

Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65



WARNING This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Chemical name	California Proposition 65
Ethylbenzene 100-41-4 (<0.1 %)	Carcinogen
Naphthalene 91-20-3 (<0.1 %)	Carcinogen

U.S. State Right-to-Know Regulations

US State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Mineral oil 64742-53-6	-	X	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

<u>NFPA</u>	Health hazards 0	Flammability 1	Instability 0	Physical and chemical properties - Personal protection B
<u>HMIS</u>	Health hazards 0	Flammability 1	Physical hazards 0	

Key or legend to abbreviations and acronyms used in the safety data sheet

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Revision date 21-Aug-2020

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet