

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial Preparation Date: 11.29.2022

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Revision date: 01.12.2026

Kendex 600H

SECTION 1: Identification

Product Identifier

Product Name: Kendex 600H

Product code: 4316

Recommended Use of the Product and Restriction on Use

Relevant Identified Uses: Formulating Engine Oils

Uses Advised Against: Not determined or not applicable.

Reasons Why Uses Advised Against: Not determined or not applicable.

Manufacturer or Supplier Details

Manufacturer:

United States

American Refining Group
77 North Kendall Avenue
Bradford, Pennsylvania 16701
814-368-1297
msds@amref.com
amref.com

Emergency Telephone Number:

United States

CHEMTREC
1-800-424-9300 (24 Hours)

United States

American Refining Group
814-368-1297 (24 Hours)

SECTION 2: Hazard(s) Identification

GHS Classification: Not a hazardous substance or mixture

Label elements

Hazard Pictograms: None

Signal Word: None

Hazard statements: None

Precautionary Statements: None

Hazards Not Otherwise Classified: None

SECTION 3: Composition/Information on Ingredients

Identification	Name	Weight %
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CAS Number: 64742-57-0	Residual oils (petroleum), hydrotreated	50-55
CAS Number: 64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	45-50

Additional Information: None

SECTION 4: First Aid Measures

Description of First Aid Measures

General Notes:

Not determined or not applicable.

After Inhalation:

Move exposed person to fresh air. Get medical attention if irritation develops.

After Skin Contact:

In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.

After Eye Contact:

Check for and remove any contact lenses. Flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention if irritation develops.

After Swallowing:

First aid is normally not required. Get medical attention if discomfort develops.

Most Important Symptoms and Effects, Both Acute and Delayed

Acute Symptoms and Effects:

Not determined or not applicable.

Delayed Symptoms and Effects:

Not determined or not applicable.

Immediate Medical Attention and Special Treatment

Specific Treatment:

Not determined or not applicable.

Notes for the Doctor:

No specific treatment. Treat symptomatically. Contact poison treatment specialist if large quantities have been ingested or inhaled.

SECTION 5: Firefighting Measures

Extinguishing Media

Suitable Extinguishing Media:

Use dry chemical, CO₂, water spray (FOG) or foam.

Unsuitable Extinguishing Media:

Avoid solid water stream as it may scatter and spread fire.

Specific Hazards During Fire-Fighting:

Elevated temperatures can lead to the formation of irritating fumes and vapors. Decomposing products may include the following materials: Carbon dioxide and Carbon monoxide.

Special Protective Equipment for Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Special precautions:

Not determined or not applicable.

SECTION 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Put on appropriate personal protective equipment.

Environmental Precautions:

Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and Material for Containment and Cleaning Up:

Stop leak if without risk. Cover liquid spill with sand, earth or other noncombustible absorbent material.

Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container

Reference to Other Sections:

Not determined or not applicable.

SECTION 7: Handling and Storage

Precautions for Safe Handling:

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest.

Conditions for Safe Storage, Including Any Incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat. Protect from light. Keep in properly labeled containers. Keep out of the reach of children. Incompatibilities: Oxidizing Agents

SECTION 8: Exposure Controls/Personal Protection

Only those substances with limit values have been included below.

Occupational Exposure Limit Values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	64742-54-7	8-Hour TWA: 5 mg/m ³ (Oil mists, mineral; Pure, highly and severely refined, inhalable particulate matter)
	Residual oils (petroleum), hydrotreated	64742-57-0	8-Hour TWA: 5 mg/m ³ (Mineral oil, excluding metal working fluids, pure, highly and severely refined, inhalable fraction)
NIOSH	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	64742-54-7	REL-TWA: 5 mg/m ³ (Oil mists, mineral [up to 10 hr])
	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	64742-54-7	IDLH: 2500 mg/m ³ (Oil mists, mineral)
	Residual oils (petroleum), hydrotreated	64742-57-0	REL-TWA: 5 mg/m ³ (Oil mist (mineral) [10-hour workday during 40-hour workweek])
	Residual oils (petroleum), hydrotreated	64742-57-0	15-Minute STEL: 10 mg/m ³ (Oil mist (mineral))

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Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Residual oils (petroleum), hydrotreated	64742-57-0	IDLH: 2500 mg/m ³ (Oil mist (mineral))
United States(California)	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	64742-54-7	8-Hour TWA-PEL: 5 mg/m ³ (Oil mists, mineral; particulate)
	Residual oils (petroleum), hydrotreated	64742-57-0	8-Hour TWA-PEL: 5 mg/m ³ (Oil (mineral) mist, particulate)
OSHA	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	64742-54-7	8-Hour TWA-PEL: 5 mg/m ³ (Oil mists, mineral)
	Residual oils (petroleum), hydrotreated	64742-57-0	8-Hour TWA-PEL: 5 mg/m ³ (Oil mist (mineral))

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Information on Monitoring Procedures:

Not determined or not applicable.

Appropriate Engineering Controls:

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protection Equipment

Eye and Face Protection:

Safety Glasses

Skin and Body Protection:

Normal work gloves are appropriate.

Respiratory Protection:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

General Hygienic Measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Opaque
Odor	Hydrocarbon Oil
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	>640°F
Flash point (closed cup)	460°F
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.

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Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	7.34 lbs/gal
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	110.1 cSt (40°C mm ² /s)
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

SECTION 10: Stability and Reactivity

Reactivity:

Polymerization will not occur.

Chemical Stability:

Stable under normal conditions.

Possibility of Hazardous Reactions:

None, under normal processing.

Conditions to Avoid:

High temperatures, flames, sparks.

Incompatible Materials:

Strong acids and oxidizing materials.

Hazardous Decomposition Products:

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

SECTION 11: Toxicological Information

Acute Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Route	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	oral	LD50 Rat: > 15,000 mg/kg
	dermal	LD50 Rabbit: > 5000 mg/kg
	inhalation	LC50 Rat: >2.4 mg/L (4 hr [aerosol])
Residual oils (petroleum), hydrotreated	oral	LD50 Rat: >5000 mg/kg
	inhalation	LC50 Rat: 2.18 mg/L (4 hr [Aerosol])
	dermal	LD50 Rabbit: >5000 mg/kg

Skin Corrosion/Irritation

Assessment: Based on available data, the classification criteria are not met.

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No data available.

Substance Data: No data available.

Serious Eye Damage/Irritation

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Respiratory or Skin Sensitization

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Species	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)		The classification as a carcinogen does not apply because it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

International Agency for Research on Cancer (IARC):

Name	Classification
Residual oils (petroleum), hydrotreated	Not Applicable

National Toxicology Program (NTP):

Name	Classification
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Not Applicable
Residual oils (petroleum), hydrotreated	Not Applicable

OSHA Carcinogens: Not applicable

Germ Cell Mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Reproductive Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Single Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

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No data available.

Substance Data: No data available.

Specific Target Organ Toxicity (Repeated Exposure)

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data:

No data available.

Substance Data: No data available.

Information on Likely Routes of Exposure:

No data available.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics:

No data available.

Other Information:

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test

SECTION 12: Ecological Information

Acute (Short-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Fish LC50 Pimephales promelas: > 100 mg/L (96 hr [mortality])
	Aquatic Invertebrates EC50 Daphnia magna: > 10,000 mg/L (48 hr [mobility, Read-across substance data])

Chronic (Long-Term) Toxicity

Assessment: Based on available data, the classification criteria are not met.

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Fish NOEC Oncorhynchus mykiss: >= 1000 mg/L (14 d [mortality, QSAR data])
	Aquatic Invertebrates NOEC Daphnia magna: 10 mg/L (21 d [reproduction, Read-across substance data])

Persistence and Degradability

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Standard biodegradability studies are not applicable to petroleum UVCB substances.

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Name	Result
Residual oils (petroleum), hydrotreated	The substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Bioaccumulative Potential

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Standard bioaccumulation studies are not applicable to petroleum UVCB substances.
Residual oils (petroleum), hydrotreated	The substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Mobility in Soil

Product Data: No data available.

Substance Data:

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Standard adsorption/desorption studies are not applicable to petroleum UVCB substances.
Residual oils (petroleum), hydrotreated	The substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Results of PBT and vPvB assessment

Product Data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Substance Data:

PBT assessment:

Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Standard PBT studies are not applicable to petroleum UVCB substances.
Residual oils (petroleum), hydrotreated	The substance is not PBT

vPvB assessment:

Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Standard vBvB studies are not applicable to petroleum UVCB substances.
Residual oils (petroleum), hydrotreated	The substance is not vPvB

Other Adverse Effects: No data available.

SECTION 13: Disposal Considerations

Disposal Methods:

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local

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regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport Information

United States Transportation of Dangerous Goods (49 CFR DOT)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Maritime Dangerous Goods (IMDG)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN Number	Not regulated
UN Proper Shipping Name	Not regulated
UN Transport Hazard Class(es)	None
Packing Group	None
Environmental Hazards	None
Special Precautions for User	None

SECTION 15: Regulatory Information

United States Regulations

Inventory Listing (TSCA): All ingredients are listed-active or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export Notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 Extremely Hazardous Substances: None of the ingredients are listed.

SARA Section 313 Toxic Chemicals: None of the ingredients are listed.

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Listed
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New Jersey Right to Know:

64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Listed
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New York Right to Know: None of the ingredients are listed.

Pennsylvania Right to Know:

64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic (contains <3% DMSO extract)	Listed
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California Proposition 65: None of the ingredients are listed.

Additional information: Not determined.

SECTION 16: Other Information

Abbreviations and Acronyms: None

Disclaimer:

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

NFPA: 0-1-0

HMIS: 0-1-0

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End of Safety Data Sheet