



Safety Data Sheet

Prepared according to GHS

1. Identification

Product Name	Kendex 0600
Product Code	4316
Recommended Use	<i>Formulating engine oils</i>
Company	American Refining Group, Inc. 77 North Kendall Avenue Bradford, PA 16701 www.amref.com msds@amref.com
Emergency Telephone Number(s)	Chemtrec 1-800-424-9300 (24 HRS) ARG: 814-368-1297 (24 HRS)

2. Hazards Identification

GHS Classification	This product is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Signal Word	Not Applicable
Hazard Statements	Not Applicable
GHS Pictogram	Not Applicable
Precautionary Statements	Not Applicable

3. Composition / Information on Ingredients

CAS No.	Component	Common Name	Percent
<i>This product does not contain ingredients that are hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)</i>			

4. First Aid Measures

Eyes	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.
Skin	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.
Inhalation	Move exposed person to fresh air. Get medical attention if irritation develops.
Ingestion	First aid is normally not required. Get medical attention if discomfort develops.

4. First Aid Measures

Note to Physicians

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

5. Fire Fighting Measures

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 Arising from Chemical

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

Protective Equipment and Precautions 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.

6. Accidental Release Measures

Personal Precautions

Put on appropriate personal protective equipment.

Environmental Precautions

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

Methods for Containment

Stop leak if without risk.

Methods for Cleanup

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

7. Handling and Storage

Handling Procedures

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.

Shipping and Storing Procedures

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

8. Exposure Controls / Personal Protection

Component Exposure Limits

Oil Mist (Mineral)

ACGIH TLV:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	10 mg/m ³
OSHA PEL:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	N/A mg/m ³
NIOSH REL:	TWA:	N/A ppm	TWA:	5 mg/m ³	STEL:	N/A ppm	STEL:	10 mg/m ³

N/A signifies not available

8. Exposure Controls / Personal Protection

*Product has 0 kPa pressure at 68°F and is not expected to present any inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. Oil mist, if generated, is considered hazardous according to the OSHA Hazard Communication Standard.

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.

Eye/Face Protection

Safety Glasses

Skin 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 Hygiene

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.

9. Physical and Chemical Properties

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.

Appearance	Opaque	Flammability	Not Available
Physical State	Liquid	Upper/Lower Flammability Limits	Not Available
Odor	Hydrocarbon Oil	Vapor Pressure	Not Available
Odor Threshold	Not Available	Vapor Density	Not Available
pH	Not Available	Relative Density (lbs/gal)	7.3
Melting/Freezing Point (°F)	Not Available	Water Soluble	No
Initial Boiling Point (°F)	>640	Partition Coefficient: n-octanol/water	Not available
Boiling Range (°F)	Not Available	Auto-ignition Temperature (°F)	Not Available
Flash Point (°F)	460	Decomposition Temperature (°F)	Not Available
Evaporation Rate	Not Available	Viscosity (40°C mm²/s)	113.5

10. Chemical Stability & Reactivity Information

Reactivity

Polymerization will not occur

Chemical Stability

Stable under normal conditions

Hazardous Reactions

None, under normal processing.

Conditions to Avoid

High temperatures, flames, sparks

Incompatibility

Strong acids and oxidizing materials

Hazardous Decomposition

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

Products

11. Toxicological Information

Acute Exposure	
Respiratory Irritation	Not expected to pose respiratory irritation. An inhalation hazard may only arise if product is aerosolized or if heated up. If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract. Based on data from similar materials.
Eye Irritation	Not expected to cause irritation under normal use.
Skin Irritation	Not expected to cause irritation under normal use.
Sensitization	Not expected to cause skin or respiratory sensitization.
Chronic Exposure	
Target Organ Effects	No data available to indicate product or components at greater than 1% are target organ health hazards.
Carcinogenicity	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.
Mutagenicity	No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components contained at greater than .1% may cause birth defects.

Analysis – LD50 / LC50

Inhalation LC50 Rat	>5	mg/L
Oral LD50 Rat	>5000	mg/kg
Dermal LD50 Rabbit	>2000	mg/kg

12. Ecological Information

Component Analysis- Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 hr LL50 <i>Oncorhyncus mykiss</i>	>1000 mg/L
96 hr EL50 <i>Scenedesmus subspicatus</i>	>1000 mg/L
21 Day WAF <i>Daphnia magna</i>	>50% mg/L

Persistence & Degradability	LOBs are not readily biodegradable. However, hydrocarbons in general are known to be inherently biodegradable because of their capability of being utilized by microbial communities.
Bioaccumulation Potential	Not Available
Soil Mobility	Not Available

13. Disposal Considerations

Disposal Instructions

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 regulations.

14. Transportation Information

Emergency Response Guide No.	171	<i>North American Emergency Response Guide Book</i>		
U.S. DOT	UN Number	Shipping Name (technical name)	Hazard Class	Packing Group
Bulk		Not Regulated		
IATA		Not Regulated		
IMDG		Not Regulated		

15. Regulatory Information

SARA Extremely Hazardous Substances (Sections 302 & 304)

This product does not contain greater than 1% of any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Section 313

This product does not contain greater than 1.0% of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SARA Section 311 & 312 Classifications

Acute Hazard	No
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

CERCLA

This product does not contain any "hazardous substances" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

California Prop 65

This product is not routinely tested to determine chemical(s) known to the state of California to cause cancer and/or birth defects based on maximum impurity levels of components.

Global Chemical Inventories

Inventory	
US TSCA	Present
EU	Present
Japan	Not available

Australia	Present
New Zealand	Present
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present
China	Present
Taiwan	Not available

16. Other Information

US NFPA Ratings

Health	Fire	Reactivity
0	1	0

HMIS Ratings

Health	Fire	Physical Hazards
0	1	0

Revision Date 1 September 2015
Revision Reason New SDS

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.

End of SDS