



Safety Data Sheet

Prepared according to GHS

1. Identification

Product Name Kendex® 0840
Product Code 4312
Recommended Use Asphalt Modifier. Metal working applications.
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 Skin Corrosion/Irritation Category 2
Signal Word WARNING!
Hazard Statements Causes Skin Irritation
GHS Pictogram



Precautionary Statements Wash Thoroughly after handling.
Wear protective gloves
If on skin: wash with plenty of soap and water.
If skin irritation occurs: get medical attention/advice.
Take off contaminated clothing and was before reuse.

3. Composition / Information on Ingredients

CAS No.	Component	Common Name	Percent
64741-45-3	Residues (petroleum), atm. Tower	Bright Stock	20%
64742-16-1	Petroleum Resins	Gas Oils	20%
64742-01-4	Residual oils, solvent-refined	Finished Bright Stock	60%

4. First Aid Measures

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Eyes	Check for and remove any contact lenses. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin	In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
Inhalation	Move exposed person to fresh air. Get medical attention if irritation develops.
Ingestion	DO NOT INDUCE VOMITING.
Symptoms(Acute and delayed)	May cause minimal eye irritation, minimal to moderate skin irritation.
Note to Physicians	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately 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

A vapor suppressing foam may be used to reduce vapors. 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. Avoid breathing vapor or mist.

7. Handling and Storage

Shipping and Storing Procedures

Keep container tightly closed in a dry 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

*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

Material should be handled in enclosed vessels and equipment only if aerosolized and/or misted. Use only in adequate ventilation if this occurs. 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

Chemical goggles or face shield.

Skin Protection

Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Respiratory Protection

No special requirements under ordinary use and with adequate ventilation. Respiratory may only be needed if product is aerosolized and/or misted.

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	Petroleum oil	Vapor Pressure	Not Available
Odor Threshold	Not Available	Vapor Density	Not Available
pH	Not Available	Relative Density (lbs/gal)	7.53
Melting/Freezing Point (°F)	Not Available	Water Soluble	No

9. Physical and Chemical Properties

Initial Boiling Point (°F)	>625	Partition Coefficient: n-octanol/water	Not Available
Boiling Range (°F)	Not Available	Auto-ignition Temperature (°F)	Not Available
Flash Point (°F)	595	Decomposition Temperature (°F)	Not Available
Evaporation Rate	Not Available	Viscosity @ 40°C, cSt	795

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

11. Toxicological Information

Acute Exposure	No data available to indicate product or components at greater than 1% are acute health hazards. Primary route of exposure is dermal.
Respiratory Irritation	An inhalation hazard may only arise if product is used in aerosol conditions 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.
Eye Irritation	Minimal eye irritation. Vapors formed from heating may cause eye irritation
Skin Irritation	Cause minimal to moderate skin irritation. Redness may occur, varies with exposure.
Sensitization	This product is not a sensitizer.
Chronic Exposure	
Target Organ Effects	
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 have a Mutagenicity Index of <1 by the Modified Ames test.
Mutagenicity	This product contains mineral oils which are considered to be severely refined and not considered to be mutagenic under IARC. All of the oils in this product have been demonstrated to have a Mutagenicity Index of <1 by the Modified Ames test.
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	>22 mg/L 4h
Oral LD50 Rat	>5000 mg/kg
Dermal LD50 Rabbit	>2000 mg/kg

12. Ecological Information

Component Analysis - 64741-45-3 - Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 hr LL50 Aquatic Vertebrates	>1000 mg/L
96 hr EL50 Algae	>220; <460 mg/L
7 Day EL50 <i>Daphnia magna</i>	>1000 mg/L

Component Analysis - 8052-42-4 - Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 Hr LL50; WAF Aquatic Vertebrates	>1000 mg/L

Component Analysis - 64742-01-4 - Ecotoxicity – Aquatic Life

Duration/Test/Species	Concentration/Conditions
96 hr LL50 <i>Oncorhynchus 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	Inherently biodegradable
Bioaccumulation Potential	Not Available
Soil Mobility	The constituents with heavier molecular weights may float or sink, when in contact with water, depending on density relations. These constituents will eventually become incorporated with the soil and may participate, at least partially, with microbes in biodegradation.
Other Adverse Effects	Data for heavy fuel oils showed slight or no acute toxicity to fish when tested as either WAFs or OWDs

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

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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
		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	Yes
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 chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

Global Chemical Inventories

Inventory	
US TSCA	Present
EU	Present
Japan	Not available
Australia	Present
New Zealand	Not available
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present

China	Present
Taiwan	Not available

16. Other Information

US NFPA Ratings

Health	Fire	Reactivity
1	1	0

HMIS Ratings

Health	Fire	Physical Hazards
1	1	0

Revision Date

22 July 2016

Revision Reason

Section 3

The information provided on this MSDS 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