



Safety Data Sheet

Prepared according to GHS

1. Identification

| | |
|--------------------------------------|---|
| Product Name | Kendex® 0888 |
| Product Code | 4608 |
| Recommended Use | <i>Metal Working Blend</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 | Eye Damage/Irritation Category 2B Skin Corrosion/Irritation Category 2 |
| Signal Word | Warning! |
| Hazard Statements | Causes eye irritation Causes skin irritation |
| Other Hazard Information | Oil mist, if generated, is considered hazardous according to the OSHA Hazard Communication Standard. The permissible exposure limit (PEL) and threshold limit value (TLV) for this product as oil mist is 5 mg/m ³ . Exposures below specified limit appear to pose no significant health risk. The short-term exposure limit for this product as an oil mist is 10 mg/m ³ . |

GHS Pictogram



| | |
|---------------------------------|---|
| Precautionary Statements | Avoid breathing mist. Wash thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Wear Protective Gloves. If on skin: wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before reuse. |
|---------------------------------|---|

3. Composition / Information on Ingredients

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| CAS No. | Component | Common Name | Percent |
|------------|---------------------------------|-------------|---------|
| 64742-46-7 | Hydrotreated distillate, middle | Gas Oils | 30-40% |
| 8052-42-4 | Petroleum Resins | Resin | 55-65% |

4. First Aid Measures

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|------------------------------------|--|
| Eyes | Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation develops. |
| Skin | In case of contact, immediately flush skin with plenty of 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 | Product is not expected to present any inhalation hazard at ambient conditions. If aerosolization and/or misting occurs and a person is over-exposed, move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. |
| Ingestion | DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water. Seek medical attention immediately. |
| Symptoms(Acute and delayed) | Causes eye irritation Causes 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 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

6. Accidental Release Measures

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. Avoid breathing vapor or mist.

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.

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

Respirator may only be needed if product is aerosolized and/or misted. Use a properly fitted, air-purifying 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

8. Exposure Controls / Personal Protection

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) | 7.5 |
| Melting/Freezing Point (°F) | Not Available | Water Soluble | No |
| Initial Boiling Point (°F) | Not Available | Partition Coefficient: n-octanol/water | Not available |
| Boiling Range (°F) | Not Available | Auto-ignition Temperature (°F) | Not Available |
| Flash Point (°F) | 280 | Decomposition Temperature (°F) | Not Available |
| Evaporation Rate | Not Available | Viscosity (40°C mm²/s) | 400 |

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 |
| 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 | |
| Respiratory Irritation | An inhalation hazard may only arise if product is used in aerosol/aerosolized conditions or if heated. 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 | Causes minimal to slight eye irritation if product is splashed in eyes and unwashed |
| Skin Irritation | Causes very slight reversible skin irritation. May cause slight redness and swelling. |
| Sensitization | Not expected to cause skin or respiratory sensitization. |
| Aspiration Hazards | Not expected to cause an aspiration hazard. |

Chronic Exposure

Target Organ Effects

No data available to indicate product or components at greater than 1% are chronic 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 | 12.6 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; WAF Aquatic Vertebrates | 0.18 mg/L |

| | |
|--|---------------|
| Persistence & Degradability | Not available |
| Bioaccumulation Potential | Not Available |
| Soil Mobility | Not Available |
| Other Adverse Effects | Not Available |

13. Disposal Considerations

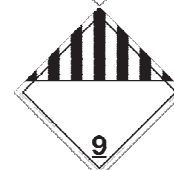
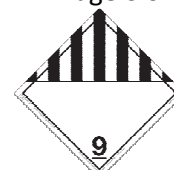
Disposal Instructions

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> | | |
| UN Number | Shipping Name (technical name) | Hazard Class | Packing Group | Placard/Label |
| U.S. DOT | Not Regulated | | | |

| | | | | |
|----------------------------------|------|---|---|-----|
| IMDG | 3082 | Environmentally Hazardous Substance, Liquid, N.O.S. (Gas Oil) | 9 | III |
| IATA *Greater than 5 L | 3082 | Environmentally Hazardous Substance, Liquid, N.O.S. (Gas Oil) | 9 | III |
| IATA *Less than 5L | 3082 | Environmentally Hazardous Substance, Liquid, N.O.S. (Gas Oil) | 9 | III |



Not required

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 does not contain 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 | Listed |
| EU | Listed |
| Japan | Not available |
| Australia | Listed |
| New Zealand | Listed |
| Canada | Listed |
| Switzerland | Not available |
| Korea | Listed |

| | |
|-------------|---------------|
| Philippines | Not Available |
| China | Listed |
| 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 12 March 2015
Revision Reason New SDS

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