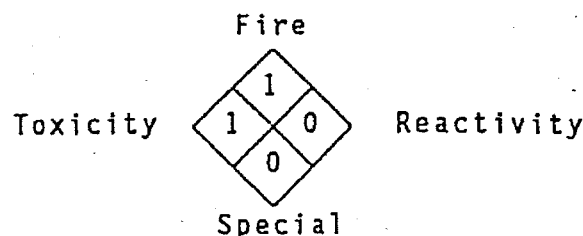


W I T C O M A T E R I A L S A F E T Y D A T A S H E E T

KENDALL KENOIL R&O AW-32,46,68 and 100

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HAZARD RATING
N 4 - Extreme
F 3 - High
P 2 - Moderate
A 1 - Slight
0 - Insignificant



DIVISION AND LOCATION---SECTION I

Division: KENDALL REFINING COMPANYLocation: BRADFORD, PENNSYLVANIA

77 N. KENDALL AVE., BRADFORD, PA, 16701

Emergency Telephone Number: (814) 368-6111Transportation Emergency: CHEM TREC 1-(800) 424-9300 (U.S. and Canada)

CHEMICAL AND PHYSICAL PROPERTIES---SECTION II

Chemical Name:

petroleum hydrocarbon

Formula: not applicableHazardous Decomposition Products:

carbon monoxide and carbon dioxide from burning.

oxides of phosphorous

oxides of sulfur

Incompatibility (Keep away from):

strong oxidizers such as hydrogen peroxide, bromine, and chromic acid.

Toxic and Hazardous Ingredients:

none

Form: liquidOdor: blandAppearance: liquidColor: amberSpecific Gravity (water=1): .87 to .88Boiling Point: greater than 330°C (625°F)Melting Point: less than -18°C (0°F)Solubility in Water (by weight %): 0 at 20°CVolatile (by weight %): 0Evaporation Rate: 0Vapor Pressure (mm Hg at 20°C): 0Vapor Density (air=1): not volatilepH (as is): not applicableStability: Product is stable under normal conditionsViscosity SUS at 100°F: Less than 100

FIRE AND EXPLOSION DATA---SECTION III

Special Fire Fighting Procedures:

Do not use water except as fog

Unusual Fire and Explosion Hazards:

none

(Continued on next page)

W I T C O M A T E R I A L S A F E T Y D A T A S H E E T

KEMBALL KENOIL R&O AW-32,46,68 and 100

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(Section III continued)

Flashpoint: (Method Used) Cleveland open cup greater than 200°C (390°F)Flammable limits %: not applicableExtinguishing agents:Drychemical or Waterfog or CO₂ or Foam

Exposed material may be cooled with water.

HEALTH HAZARD DATA---SECTION IV

Permissible concentrations (air):If used in applications where a mist may be generated, observe a TWA/PEL of 5 mg/m³ for mineral oil mist (OSHA and ACGIH).Chronic effects of overexposure:

Prolonged or repeated skin contact may cause dermatitis (skin irritation)

Acute toxicological properties:

no data available

Emergency First Aid Procedures:Eyes: Immediately flush with large quantities of water for at least 15 minutes and call a physician.Skin Contact: Remove excess with cloth or paper. Wash thoroughly with soap and water.Inhalation: Remove victim to fresh air. Call a physician.If Swallowed: Call a physician immediately. DO NOT induce vomiting. (Vomiting may cause aspiration into lungs resulting in chemical pneumonia.)

SPECIAL PROTECTION INFORMATION---SECTION V

Ventilation Type Required (Local, mechanical, special):

Local if necessary to maintain allowable PEL(permissible exposure limit) or TLV(threshold limit value)

Respiratory Protection (Specify type):

Use NIOSH/OSHA approved respirator with organic vapor cartridge if vapor concentration exceeds permissible exposure limit

Protective Gloves: neoprene typeEye Protection: chemical safety goggles.Other Protective Equipment:

none

HANDLING OF SPILLS OR LEAKS---SECTION VI

Procedures for Clean-Up:

Transfer bulk of mixture into another container. Absorb residue with an inert material such as earth, sand, or vermiculite. Sweep up and dispose as solid waste in accordance with local, state, and federal regulations.

Waste Disposal:

Dispose of in accordance with all applicable federal, state and local regulations.

(Continued on next page)

W I T C O M A T E R I A L S A F E T Y D A T A S H E E T

KENDALL KENOIL R&O AW-32,46,68 and 100

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SPECIAL PRECAUTIONS---SECTION VII

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Precautions to be taken in handling and storage:

Do not handle or store at temperatures over

Maximum Storage Temperature: 38°C (100°F)

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TRANSPORTATION DATA---SECTION VIII

D.O.T.: Not RegulatedReportable Quantity: not applicableFreight Classification: Petroleum Lubricating OilSpecial Transportation Notes:

none

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COMMENTS---SECTION IX

Signature: Luther DromgoldTitle:

MANAGER, NEW PRODUCTS

Original Date: 04/01/68Sent to:Date:Revision Date: 06/20/86Supersedes: 11/18/83

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