

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number CP755RICMAR
Product name NU-KOIL PENETRATING COIL CLEANER
Effective date 18-Mar-2010
Company information RICMAR INDUSTRIES
889 N LARCH AVE
ELMHURST, IL 60126 United States
Company phone General Assistance 800-323-0779
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 703-527-3887
Version # 06
Supersedes date 17-Sep-2009

2. Hazards Identification

Emergency overview CONTENTS UNDER PRESSURE. Aerosol.
Prolonged exposure may cause chronic effects.

Potential health effects

Routes of exposure Skin contact. Ingestion.

Eyes Health injuries are not known or expected under normal use.

Skin This product may be harmful if it is absorbed through the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal.

Ingestion Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.

Target organs 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.
Blood.

Chronic effects Unconsciousness. Prolonged skin contact may defat the skin and produce dermatitis.

Signs and symptoms Cyanosis. Defatting of the skin. Irritation.

3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|--|----------|---------|
| n-Butane | 106-97-8 | 3 - 5 |
| 2-Butoxyethanol | 111-76-2 | 1 - 3 |
| Diethylene Glycol Monoethyl Ether | 111-90-0 | 1 - 3 |
| Propane | 74-98-6 | 1 - 3 |
| Non-hazardous and other components below reportable levels | | > 90 |

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Skin contact Immediately take off all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops or persists.

Inhalation If symptoms develop move victim to fresh air. If symptoms persist, get medical attention.

Ingestion Have victim rinse mouth thoroughly with water. If ingestion of a large amount does occur, call a poison control center immediately.

5. Fire Fighting Measures

| | |
|--|--|
| Flammable properties | Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard. |
| Extinguishing media | |
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| Protection of firefighters | |
| Protective equipment and precautions for firefighters | In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Containers should be cooled with water to prevent vapor pressure build up. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. |

6. Accidental Release Measures

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|--------------------------------|---|
| Methods for containment | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. |
| Methods for cleaning up | Should not be released into the environment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. |

7. Handling and Storage

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|-----------------|---|
| Handling | Pressurized container. Do not pierce or burn, even after use. Do not handle or store near an open flame, heat or other sources of ignition. Do not use if spray button is missing or defective. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. |
| Storage | Level 1 Aerosol. Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Keep away from heat, sparks, and flame. Avoid exposure to long periods of sunlight. Store in cool place. Keep the container dry. Keep out of the reach of children. Level 1 Aerosol (NFPA 30B) Do not store, incinerate, or heat this material above 120 degrees Fahrenheit. |

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

| Components | CAS # | TWA | STEL | Ceiling |
|-----------------|----------|----------|-----------------|-----------------|
| n-Butane | 106-97-8 | 1000 ppm | Not established | Not established |
| 2-Butoxyethanol | 111-76-2 | 20 ppm | Not established | Not established |
| Propane | 74-98-6 | 1000 ppm | Not established | Not established |

OSHA

| Components | CAS # | TWA | STEL | Ceiling |
|-----------------|----------|----------|-----------------|-----------------|
| 2-Butoxyethanol | 111-76-2 | 50 ppm | Not established | Not established |
| Propane | 74-98-6 | 1000 ppm | Not established | Not established |

Personal protective equipment

| | |
|-------------------------------|--|
| Eye / face protection | Wear chemical goggles. |
| Skin protection | Wear appropriate chemical resistant clothing. Protective gloves. |
| Respiratory protection | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. |

9. Physical & Chemical Properties

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|-------------------|--------------------------|
| Appearance | Compressed liquefied gas |
|-------------------|--------------------------|

| | |
|---------------------------|--------------------------------|
| Boiling point | 208.4 °F (97.8 °C) estimated |
| Color | Colorless. |
| Flammability (HOC) | 3.6422 kJ/g estimated |
| Flash back | No |
| Flash point | -156 °F (-104.4 °C) Propellant |
| Form | Aerosol. |
| Odor | Characteristic. |
| pH | 11.72 - 12.7 |
| Physical state | Liquid. |
| Pressure | 65 - 75 psig @ 70F |
| Solubility | Partially |
| Specific gravity | 0.9692 estimated |

10. Chemical Stability & Reactivity Information

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|---|--|
| Chemical stability | Risk of ignition. |
| Conditions to avoid | Heat, flames and sparks |
| Incompatible materials | None known. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological Information

| | | |
|---|--|---|
| Acute effects | Acute LD50: 11169 mg/kg estimated, Rat, Dermal | |
| Component analysis - LD50 | | |
| Toxicology Data - Selected LD50s and LC50s | | |
| 2-Butoxyethanol | 111-76-2 | Inhalation LC50 Rat 2.21 mg/L 4 h, Inhalation LC50 Rat 450 ppm 4 h, Oral LD50 Rat 470 mg/kg, Dermal LD50 Rat 2270 mg/kg, Dermal LD50 Rabbit 220 mg/kg |
| Diethylene Glycol Monoethyl Ether | 111-90-0 | Oral LD50 Rat 1920 mg/kg, Dermal LD50 Rabbit 4200 µL/kg, Dermal LD50 Rat 6 mL/kg, Inhalation LC50 Rat >5240 mg/m ³ 4 h |
| n-Butane | 106-97-8 | Inhalation LC50 Rat 658 mg/L 4 h |
| Propane | 74-98-6 | Inhalation LC50 Rat 658 mg/L 4 h |
| Sensitization | Not expected to be hazardous by OSHA criteria. | |
| Teratogenicity | Not expected to be hazardous by OSHA criteria. | |

12. Ecological Information

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|--------------------|---|
| Ecotoxicity | Components of this product have been identified as having potential environmental concerns. |
| | LC50 557 mg/L, Fish, 96.00 Hours, EC50 959 mg/L, Daphnia, 48.00 Hours, IC50 65.75 mg/L, Algae, 72.00 Hours. |

13. Disposal Considerations

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|------------------------------|--|
| Waste codes | D001: Waste Flammable material with a flash point <140 F D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] |
| Disposal instructions | Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container at hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations |

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:
Proper shipping name Consumer commodity
Hazard class ORM-D
Subsidiary hazard class None
Additional information:
Packaging exceptions 156, 306
Packaging non bulk 156, 306
Packaging bulk None

IMDG

Basic shipping requirements:
Proper shipping name AEROSOLS
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Item 5F
Labels required None
Transport Category 2



IATA

Basic shipping requirements:
Proper shipping name Aerosols, flammable
Hazard class 2.1
UN number 1950
Additional information:
Packaging exceptions LTD QTY
Labels required 2.1



15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|-----------------------------------|----------|---|
| 2-Butoxyethanol | 111-76-2 | 1.0 % de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR', where n = 1, 2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230) |
| Diethylene Glycol Monoethyl Ether | 111-90-0 | 1.0 % de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR', where n = 1, 2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230) |

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 302 extremely hazardous substance No
Section 311 hazardous chemical Yes
Hazard categories (311/312) Immediate Hazard - Yes
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

Inventory status

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of New and Existing Chemicals (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations**U.S. - Pennsylvania - RTK (Right to Know) List**

| | | |
|-----------------------------------|----------|----------------------|
| 2-Butoxyethanol | 111-76-2 | Present |
| Diethylene Glycol Monoethyl Ether | 111-90-0 | Environmental hazard |
| n-Butane | 106-97-8 | Present |
| Propane | 74-98-6 | Present |

16. Other Information**Further information**

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 1
Flammability: 2
Physical hazard: 0

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

MSDS sections updated

Product and Company Identification: Product Review
Physical & Chemical Properties: Physical & Chemical Properties

Prepared by

Regulatory Compliance