



Radcolube® 21260-10
MATERIAL DATA SAFETY SHEET

Radco Industries, Inc.

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ISO 9001:2000 Certification Number: C2009-00209

CAGE# 1RVC4

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Effective Date: 05/19/09

Emergency Phone Numbers: For chemical emergency, spill, leak, fire exposure, accident or medical emergency, call CHEMTREC: North America 1-800-424-9300 International +1 703-527-3887

Section I PRODUCT IDENTIFICATION

Product Name: Radcolube® 21260-10 (Lubricating Oil, Combustion Engine, Preservative Break-In)

Note: Meets Military Specification MIL-PRF-21260E.

Qualification# MP-424 Dated: 25 March 2009

NSN: 9150-00-111-0208

Section II CHEMICAL PRODUCT

| | <u>CAS#</u> | <u>% by Wt.</u> |
|---------|-----------------------------|-----------------|
| MIXTURE | Not applicable for mixtures | |

Section III HAZARDS IDENTIFICATION

Potential Health Effects:

Eye Contact: Not expected to cause eye irritation based on data from components or similar materials.

Skin Contact: Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated skin contact from wet clothing with material may cause dermatitis. Symptoms may include redness, edema, drying and cracking of the skin.

Inhalation: If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Ingestion: Significant adverse health effects are not expected if small amounts (less than a mouthful) are swallowed.

HMIS Code: (Health: 0) (Flammability: 1) (Reactivity: 0)

NFPA Code: (Health: 1) (Flammability: 1) (Reactivity: 0)

Section IV First Aid Measures

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| Eye: | Flush with water at least 30 minutes. Seek medical attention if eye irritation develops or persists. |
| Skin: | Wash with soap and water. Seek medical attention if irritation occurs. Launder contaminated clothing before reuse. |
| Inhalation: | Remove exposed person to fresh air if adverse affects are observed. |
| Ingestion: | DO NOT INDUCE VOMITING. Seek immediate medical attention. |

Section V Firefighting Measures/ Fire Data

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| Flashpoint: | 185°C, 365°F PMCC (Typical) |
| Autoignition: | Not Determined |
| UEL: | Not Determined |
| LEL: | Not Determined |

Extinguishing Media: CO₂, dry chemical or foam. Water can be used to cool and protect exposed material.

Unusual Fire & Explosion Hazards: None Known.

Firefighting Procedures: Recommend wearing self-contained breathing apparatus. Water may cause splattering.

Section VI Accidental Release Measures

Spill Procedures: Personal protective equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Pick up free liquid for recycle and/or disposal. Residual material can be absorbed on inert material.

Section VII Handling and Storage

- Handling:** Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Wash thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.
- Storage:** Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used.

Section VIII Exposure Controls/ Personal Protection

- Exposure Limits:** Contains mineral oil. Under conditions which may generate mists observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.
- Engineering Controls:** Use with adequate ventilation.
- Glove Procedures:** Nitrile.
- Eye Protection:** Safety Glasses.
- Respiratory:** Use NIOSH/MSHA approved respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
- Clothing:** Long sleeve shirt is recommended. Wear either a chemical protective suit or apron when potential for contact with material exists. Launder contaminated clothing before reuse.

Section IX Chemical and Physical Properties

- Appearance:** Brown liquid.
- Odor:** Mild.
- pH:** Not determined.
- Vapor Pressure:** Not determined.
- Specific Gravity:** 0.88 (15.6 deg C)
- Vapor Density:** Not determined.

Section IX Chemical and Physical Properties Cont.

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| Water Solubility: | Insoluble. |
| Viscosity: | 46 cSt @ 40 C 7.3 cSt @ 100C |
| Boiling Point: | Not determined. |
| Pour Point: | -39 C |
| Melting Point: | Not determined. |
| Freezing Point: | Not determined. |

Section X Stability & Reactivity

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| Stability: | Material is normally stable at room temperature and pressure. See the handling and storage section for further details. |
| Decomposition: | Temperature not determined. |
| Incompatibility: | Oxidizing agents |
| Polymerization: | Will not occur. |
| Thermal Decomposition: | Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released. |
| Conditions to Avoid: | Not determined. |

Section XI Toxicological Information

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| Acute Exposure: | |
| Dermal Toxicity: | The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials. |
| Inhalation Toxicity: | No data available to indicate product or components may be a toxic inhalation hazard. |
| Oral Toxicity: | The LD50 in rats is >5000mg/Kg. Based on data from components or similar materials. |
| Chronic Exposure: | |
| Chronic Toxicity: | No data available to indicate product or components present 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 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 either product or components present at greater than 0.1% are mutagenic or genotoxic. |

Section XI Toxicological Information Cont.

Reproductive

Toxicity: No data available to indicate either product or components present at greater than 0.1% may cause reproductive toxicity.

Teratogenicity: No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

Section XII Ecological Information

Ecological toxicity testing has not been conducted on this product.

Environmental Fate:

Biodegradation: At least 25% of the components in this product show moderate biodegradation based on OECD 301-type test data. At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test.

Bioaccumulation: 25% or greater of the components potentially bioconcentrate, based on octanol/water coefficients.

Soil Mobility: Not determined.

Section XIII Disposal Information

Waste Disposal: This material, if discarded is not a hazardous waste under RCRA Regulation 40 CFR 261. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

Section XIV Transportation Information

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|---------------------------|----------------|--------------------------|----------------|
| ICAO/IATA I | Not regulated. | U.S. DOT Non-Bulk | Not regulated |
| ICAO/IATA II | Not regulated. | DOT NAERG | Not applicable |
| IMDG | Not regulated. | TDG Bulk | Not regulated |
| IMDG EMS Fire | Not applicable | TDG Non-Bulk | Not regulated |
| IMDG EMS Spill | Not applicable | Mexico | Not regulated |
| IMDG MFAG | Not applicable | Mexico Non-Bulk | Not regulated |
| MARPOL Annex II | Not determined | Bulk Quantity | 85000 L |
| USCG Compatibility | Not determined | Non-Bulk Quantity | 207.8 L |
| U.S. DOT Bulk | Not regulated | | |

Section XV Regulatory Information

Global Chemical Inventories:

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| USA | All components of this material are on the US TSCA Inventory or are exempt. |
| EU | All components are in compliance with the EC 7 th amendment Directive 92/32/EEC. |
| Japan | All components are in compliance with the Chemical Substances Control Law of Japan. |
| Australia | All components are in compliance with chemical notification in New Zealand. |
| Canada | All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List. |
| Switzerland | All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland. |
| Korea | All components are in compliance in Korea |
| Philippines | All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act Of 1999 (R.A. 6969) |
| China | All components of this product are listed on the Inventory of Existing Chemical Substances in China. |

Other U.S. Federal Regulations:

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| SARA Ext. Haz. Subt. | This product does not contain greater than 1.0% of any chemical Substance on the SARA Extremely Hazardous Substances list. | |
| SARA Section 313 | From 0.5 to 1.5 percent zinc compounds; contains 0.1% as Zn. | |
| SARA 311 Classifications: | Acute Hazard | NO |
| | Chronic Hazard | NO |
| | Fire Hazard | NO |
| | Reactivity Hazard | NO |
| CERCLA Hazardous Substances | None Known | |
| FDA approval | Not applicable | |

Section XV Regulatory Information Cont.**State Regulations:**

Cal. Prop. 65 This product contains the following chemical(s) known to the State of California to cause cancer and/or birth defects based on maximum impurity levels of components: <0.05 ppm arsenic <0.005 ppm cadmium <0.005 ppm lead.

Product Registrations:

**U.S. Fuel
Registration:** Not applicable

**U.S. Dept
Of Agriculture:** This product has not been filed with the USDA to support H2 approvals.

**NSF Non-Food
Compounds Reg.** This product has not been filed with the NSF to support H1 or H2 approvals.

Section XVI Other Information

This product to the best of our knowledge does not contain and is not manufactured with and Class I or II Ozone Depleting Chemicals (ODCs).

This material safety data sheet and the information it contains is offered in good faith as accurate. We have reviewed all information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either expressed or implied.

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