

Safety Data Sheet



Revision Date: 2016-08-23

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

RB CAP

Product Name RB CAP
Product Description Calcium Alkyl Phenate
Supplier RB Products, Inc.
740 Bradfield Road
Houston, TX 77060
USA
Tel: 1 (281) 992-3500

24 Hour Emergency Number 1 (800) 231-0623 or (510) 231-0623
Other Product Information sales@rbproductsinc.com

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION

Hazardous to aquatic environment, Category 4; H413 May cause long lasting harmful effects to aquatic life.

Signal Word: None.

PICTOGRAM: None.

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation. If this material is heated, thermal burns may result from eye contact.

Skin: Contact with the skin causes irritation. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. If this material is heated, thermal burns may result from skin contact.

Ingestion: May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Inhalation: Not expected to be harmful if inhaled.

DELAYED OR OTHER HEALTH EFFECTS:

Reproduction and Birth Defects: Repeated swallowing of this material may cause adverse reproductive effects based on animal data.

See Section 11 for additional information. Risk depends on duration and level of exposure.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS# | Weight% |
|---|-------------------------|---------|
| Highly refined mineral oil (C15-C50) | Mixture | 35 |
| Branched Alkylphenol and Calcium branched alkylphenol | 7499-35-7 & 132752-19-3 | 7 |
| Ethylene glycol | 107-21-1 | 2 |

SECTION 4: FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water. If heated material should splash into eyes, flush eyes immediately with fresh water for 15 minutes while holding the eyelids open. Remove contact lenses, if worn. Get immediate medical attention.

Safety Data Sheet



Revision Date: 2016-08-23

Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse. If the hot material gets on skin, quickly cool in water. See a doctor for extensive burns. Do not try to peel the solidified material from the skin, or use solvents or thinners to dissolve it. The use of vegetable oil or mineral oil is recommended for removal of this material from the skin.

Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

Flash Point: (Cleveland Open Cup) 180°C (356°F) Minimum.

Autoignition Temperature: No data available.

Flammable Limits (in air by volume, %): Upper: No data available, Lower: No data available.

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. If heated material is spilled, allow it to cool before proceeding with disposal methods.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7: HANDLING AND STORAGE

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Avoid contact of heated material with eyes, skin, and clothing. Do not taste or swallow. Wash thoroughly after handling.

General Handling Information: The maximum handling temperature is 40°C. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR

1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77,

Safety Data Sheet



Revision Date: 2016-08-23

'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'. The maximum storage temperature is 82°C.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice. If this material is heated, wear chemical goggles or safety glasses or a face shield.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.

Respiratory Protection: No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

OCCUPATIONAL EXPOSURE LIMITS

| Component | Agency | TWA | STEL | Ceiling | Notation |
|--------------------------------------|----------|---------------------|----------------------|-----------------------|----------|
| Ethylene glycol | ACGIH | - | - | 100 mg/m ³ | - |
| Highly refined mineral oil (C15-C50) | ACGIH | 5 mg/m ³ | 10 mg/m ³ | - | - |
| Highly refined mineral oil (C15-C50) | OSAH Z-1 | 5 mg/m ³ | - | - | - |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|--------------------|
| Appearance | Brown |
| Odor | Petroleum odor. |
| Odor threshold | No data available. |
| pH | Not applicable. |
| Initial boiling point and boiling range | No data available. |
| Evaporation Rate (water = 1) | No data available. |

Safety Data Sheet



Revision Date: 2016-08-23

| | |
|--|--------------------|
| Vapor Density (air = 1) | No data available. |
| Vapor pressure (20°C) | 0.0001 |
| Solubility (in water) | 0.01% |
| Density (15°C) | 1.095 kg/l |
| Viscosity (100°C) | 190 cSt |
| Coefficient of Thermal Expansion (°F) | 0.00033 |

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Do not exceed handling and storage temperatures listed in MSDS Section 7 (Handling and Storage).

Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

Contains an overbased calcium branched alkyl phenate sulfide.

Skin Absorption: In an in vitro study using a structurally-related radio-labeled material and human skin, skin absorption was 0.1 µg/cm²/hr. Skin absorption was also minimal in in vitro and in vivo studies with rats.

Repeated Dose Toxicity: In a 28-day oral toxicity study in rats at 50, 300, or 1000 mg/kg/day, systemic toxicity (reduced body weight gain, increased adrenal gland weight) was observed only at the high dose. In a 28-day dermal toxicity study in rats at approximately 21.5, 107, or 269 mg/kg/day, no toxicity was observed.

Reproductive Toxicity: In a rat oral two-generation reproductive toxicity study at 50, 300, or 1000 mg/kg/day, parental toxicity was observed at the high dose (reduced body weight gain, increased pituitary gland and liver weights, and

Safety Data Sheet



Revision Date: 2016-08-23

decreased ovary, epididymides and testicular weights) and mid dose (reduced body weight gain and increased pituitary weights in males). There were no microscopic changes in any tissue. Reproductive effects (reduced number of litters, reduced litter size, and dystocia) and neonatal toxicity (increased number of dead pups and reduced pup weight gain) were observed at 1000

mg/kg/day. An increase in dead pups was also observed at 300 mg/kg/day in the first generation. Although similar findings were observed in a reproduction screen at 1000 mg/kg/day, no adverse reproductive effects were observed in a reproduction screening study of two finished lubricating oils containing 5% and 25% of this material and up to 1.68% branched alkylphenol and calcium branched alkylphenol, although male body weight was reduced.

Developmental toxicity: In a rat oral developmental toxicity study at 50, 300, or 1000 mg/kg/day, both maternal toxicity (reduced weight gain) and developmental toxicity (increased occurrence of bent ribs) occurred only at the high dose.

Contains a branched alkylphenol and a calcium branched alkylphenol.

Repeated Dose Toxicity: In female rats dosed orally at 5, 20, 60, 250 or 1000 mg/kg/day for 20 days, time to sexual maturation was decreased and organ weights (ovary, uterus, liver and adrenal) were altered at ≥ 60 mg/kg/day. In a 28-day oral study in rats at 5, 20, 60, 180 and 300 mg/kg/day, body weight gain was decreased in males and food consumption was decreased in both sexes at ≥ 180 mg/kg/day. At ≥ 180 mg/kg/day, effects on reproductive organs in both sexes did not completely recover by 14 days post-treatment. Liver and adrenal changes occurred at ≥ 20 mg/kg/day. Thyroid hypertrophy occurred in males in all treated groups but did not persist through 14 days post-treatment.

Reproductive Toxicity: Based on preliminary results of a rat oral one-generation reproductive toxicity study at 0, 5, 25 and 125 mg/kg/day, parental toxicity was observed at 25 and 125 mg/kg/day in males and 125 mg/kg/day in females (reduced body weights, body weight gain). Although there were no differences in time to mating or proportion that mated, in the 125 mg/kg/day group there was an increased incidence of abnormal estrous cyclicity, and decreased fertility index, number of pups born, live litter size, postnatal survival, and pup growth. At 25 mg/kg/day, pup growth was reduced.

Developmental Toxicity: In an oral rat developmental study at 20, 100, and 300 mg/kg/day, maternal weight gains were reduced during gestation and post-dosing at 300 mg/kg/day. At 300 mg/kg/day, there were increased incidences of fetal structural effects and reduced fetal body weights.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

This material contains one or more components that have a branched alkylphenol impurity that is highly toxic to aquatic organisms (disclosed in section 2). The components containing the impurity have been tested and are not toxic to aquatic organisms. Therefore the data in Section 2 for the alkylphenol impurity should not be used to classify the product for aquatic toxicity.

ENVIRONMENTAL FATE

Ready Biodegradability: This material is not expected to be readily biodegradable. This material may cause long-term adverse effects in the aquatic environment. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

SECTION 13: DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Safety Data Sheet



Revision Date: 2016-08-23

SECTION 14: TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g, technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: NOT REGULATED AS HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

SECTION 15: REGULATORY INFORMATION

| | | |
|----------------------------------|---------------------------------------|-----|
| EPCRA 311/312 CATEGORIES: | 1. Immediate (Acute) Health Effects: | NO |
| | 2. Delayed (Chronic) Health Effects: | YES |
| | 3. Fire Hazard: | NO |
| | 4. Sudden Release of Pressure Hazard: | NO |
| | 5. Reactivity Hazard: | NO |

REGULATORY LISTS SEARCHED:

| | |
|---------------------|----------------------|
| 01-1=IARC Group 1 | 03=EPCRA 313 |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK |
| 02=NTP Carcinogen | 06=NJ RTK |
| | 07=PA RTK |

The following components of this material are found on the regulatory lists indicated: Ethylene glycol, 03, 05, 06, 07

CERCLA REPORTABLE QUANTITIES(RQ)/EPCRA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

| Component | Component RQ | Component TPQ | Product RQ |
|-----------------|--------------|---------------|------------|
| Ethylene glycol | 5000 lbs | None | 200000 lbs |

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), KECI (Korea), PICCS (Philippines), TSCA (United States).

One or more components has been notified but may not be listed in the following chemical inventories: ENCS (Japan). Secondary notification by the importer may be required.

WHMIS CLASSIFICATION:

Class D, Division 2, Subdivision A: Very Toxic Material- Reproductive Toxicity

SECTION 16: OTHER INFORMATION

Safety Data Sheet

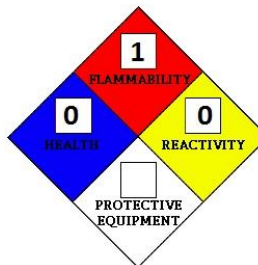


Revision Date: 2016-08-23

Hazardous Materials Information System (USA)

| | |
|-------------------|---|
| Health Hazard | 0 |
| Fire Hazard | 1 |
| Reactivity Hazard | 0 |

National Fire Protection Association (USA)



The information in this SDS pertains only to the product as shipped.

HMIS RATINGS: Health: 1 Flammability: 1 Reactivity: 0
 (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

| | |
|---|--|
| TLV - Threshold Limit Value | TWA - Time Weighted Average |
| STEL - Short-term Exposure Limit | PEL - Permissible Exposure Limit |
| | CAS - Chemical Abstract Service Number |
| ACGIH - American Conference of Government Industrial Hygienists | IMO/IMDG - International Maritime Dangerous Goods Code |
| API - American Petroleum Institute | SDS - Safety Data Sheet |
| CVX - Chevron | NFPA - National Fire Protection Association (USA) |
| DOT - Department of Transportation (USA) | NTP - National Toxicology Program (USA) |
| IARC - International Agency for Research on Cancer | OSHA - Occupational Safety and Health Administration |

Notice: This Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product. This Safety Data Sheet conforms to the requirements of ANS1 Z400 1.