



Dilmar Oil
Company

Emulsifiable Oil
1000

Material Safety Data

Section I – Chemical Product and Company Information

Product Name: Dilmar Emulsifiable Oil 1000

Preparation Date: 4/2011

Product Code: deceo1000

Revision Date:

Product Use: Anti wear, extreme oil used to meet the lubrication requirements of high speed, heavily loaded rock drills, hammers and other pneumatically operated equipment.

Manufacturer: Cam2

Telephone: (800) 922-5823

Emergency Telephone Number: 1-800-424-9300 (Chemtrec)

Section II - COMPOSITION/INFORMATION ON INGREDIENTS

Wt. Percent	Component	Synonym	CAS #
0 - 98	Highly refined petroleum lubricating oil	Lubricating oil base stock	Various * ¹
0.3 - 0.7	Mineral Oil	Not Available	Mixture
0 - 0.50	Long-chain alkyl amine	Not Available	Proprietary
0 - 0.50	Alkoxyated long-chain alkanol borate	Not Available	Proprietary
0 - 0.50	Alkyl Phosphonate	Not Available	Proprietary
0 - 0.50	Alkyl phosphate	Not Available	Proprietary
0 - 0.50	Long-chain alkenyl succinimide	Not Available	Proprietary
0 - 0.50	Long-chain alkenyl amine	Not Available	Proprietary

Component Related Regulatory Information

* Highly refined petroleum lubricating oil contains one or more CAS numbers listed as follows:

4741-88-4, 64742-52-5, 64742-54-7, 64742-55-8, 64742-58-1, 64742-57-0, 64742-01-4, 64742-62-7, 72623-83-7.

This product may be regulated, have exposure limits or other information identified as the following: Oil mist, mineral (8012-95-1).

Section III – Hazardous Ingredients/Identity Information

Appearance

Amber to dark amber liquid, petroleum odor.

Health Hazards: May be harmful if swallowed. May irritate eyes and skin.

Safety Hazards: Not classified as flammable but will burn.

Environmental Hazards: Not classified as dangerous for the environment.

Health Hazard: Not expected to be a health hazard when used under normal conditions.

Health Hazards Inhalation: Under normal conditions of use, this is not expected to be a primary route of exposure.

Skin Contact: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

Eye Contact: May cause irritation to eyes.

Ingestion: May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Other Information: Used oil may contain harmful impurities.

Signs and Symptoms: Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

Aggravated Medical Condition: Individuals with pre-existing respiratory tract (nose, throat, and lungs) eye and/or skin disorders may have increased susceptibility to the effects of exposure.

Chronic: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

Environmental Hazards: A component of this product is toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Additional Information: Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section IV – First Aid Measures

General Information: Not expected to be a health hazard when used under normal conditions.

Inhalation: No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

Skin Contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

Eye Contact: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Advice to Physician: Treat symptomatically.

Section V – Fire Fighting Measures

Clear fire area of all non-emergency personnel.

Flash point Upper / lower: Typical 165 °C (minimum) / 329 °F (COC)

Auto ignition temperature: Not available

Specific Hazards: Decomposition and combustion materials may be toxic. Burning may produce oxides of sulfur and nitrogen, aldehydes, ketones, carbon monoxide and unidentified organic compounds.

Conditions of flammability: Sparks or flame. Product may burn, but does not ignite readily.

Suitable Extinguishing Media: Carbon dioxide, regular foam, dry chemical, water spray or water fog. Water or foam may cause frothing.

Unsuitable Extinguishing Media: Do not use water in a jet.

Protective Equipment for Firefighters: A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Instructions: Keep storage containers cool with water spray.

Fire and explosion: Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

Section VI – Accidental Release Measures

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective Measures: Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Clean Up Methods: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional Advice: Local authorities should be advised if significant spillages cannot be contained.

Section VII- Handling And Storage

Handling: Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such location should be used. Use clean tools. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. This product has a low vapor pressure and is not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing and shoes.

Shipping and storing: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain residue and can be dangerous.

Section VIII – Exposure Controls/Personal Protection

EXPOSURE GUIDELINES

Component Exposure Limits

Highly Refined Petroleum Lubricating Oil

ACGIH: 5mg/m³ TWA (sampled by method that does not collect vapor) (related to Oil mist, mineral)

10 mg/m³ STEL (sampled by method that does not collect vapor) (related to Oil mist, mineral)

OSHA Final: 5 mg/m³ TWA (related to Oil mist, mineral)

OSHA Vacated: 5 mg/m³ TWA (related to Oil mist, mineral)

NIOSH: 5 mg/m³ TWA (related to Oil mist, mineral)

10 mg/m³ STEL (related to Oil mist, mineral)

Mineral Oil

ACGIH: 5mg/m³ TWA (sampled by method that does not collect vapor) (related to Oil mist, mineral)

0 mg/m³ STEL (sampled by method that does not collect vapor) (related to Oil mist, mineral)

OSHA Final: 5 mg/m³ TWA (related to Oil mist, mineral)

Engineering Controls: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

Personal Protective Equipment: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection: No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point>65°C(149 °F)].

Hand Protection: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye Protection: Wear safety glasses or full face shield if splashes are likely to occur.

Protective Clothing: Skin protection not ordinarily required beyond standard issue work clothes.

Monitoring Methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Environmental Exposure Controls: Minimize release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

Section IX – Physical And Chemical Properties

PHYSICAL STATE,

APPEARANCE Amber to dark amber liquid

ODOR: Petroleum odor

ODOR THRESHOLD: Not available

MOLECULAR WEIGHT: Not applicable

SPECIFIC GRAVITY: 0.89 (Estimated) (water=1) (approximately)

VAPOR DENSITY: >1 (Air = 1)

VAPOR PRESSURE: less than 0.1 mm Hg at 68°F (20°C)

RELATIVE DENSITY: 0.89 g/cm³ at 60°F (15.5°C)

INITIAL BOILING POINT: Not available

BOILING RANGE Not available

FREEZING/MELTING POINT: Not available

pH: Not applicable

EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Insoluble

FLASH POINT: 329 °F (165 °C) (minimum) Cleveland Open Cup

FLAMMABILITY: Not available

FLAMMABLE LIMITS IN AIR: LOWER: Not available **UPPER:** Not available

AUTOIGNITION TEMPERATURE: Not available

Section X – Stability And Reactivity

Stability: Stable.

Incompatibility: Avoid oxidizing agents

Reactivity: Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

Conditions to Avoid: Avoid heat, sparks and open flame.

Materials to Avoid : Strong oxidizing agents.

Hazardous Decomposition Products: Hazardous decomposition products are not expected to form during normal storage.

Section XI – Toxicological Information

Routes of exposure: Skin, Eyes, Ingestion, and Inhalation.

Acute Effects: May be harmful if swallowed. May irritate eyes and skin. May cause throat irritation, nausea, vomiting and diarrhea. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Repeated dose effects: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

Sensitization: Based on best current information, there is no known human sensitization associated with this product.

Mutagenicity: Based on best current information, there is no known mutagenicity associated with this product.

Carcinogenicity: Based on best current information, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1 Group 2A, or Group 2B agents as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Reproductive Toxicity: Based on best current information, there is no known reproductive toxicity associated with this product.

Teratogenicity: Based on best current information, there is no known teratogenicity associated with this product.

Neurotoxicity: High vapor / aerosol concentrations (attainable only at elevated temperatures) may cause central nervous system effects such as dizziness, drowsiness or headaches.

TOXICITY DATA:

Component Analysis – LD50/LC50

Mineral Oil

Dermal LD50 Rabbit >5000 mg/kg

Oral LD50 Rat >5000 mg/kg

Alkyl phosphate

Dermal LD50 Rabbit >2000 mg/kg

Oral LD50 Rat >3000 mg/kg

Section XII – Ecological Information

Ecotoxicity: Material expected to be harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

Persistence/Degradability: Not readily biodegradable.

Bioaccumulative Potential: No information available for the product.

Mobility in environmental media: Base oil component(s) – Low solubility and floats; expected to migrate from water to the land.

Other adverse effects: Not available.

Octanol/Water Partition Coefficient: Not available.

Volatile Organic Compounds: Negligible

Aquatic Release: Advise authorities if product has entered or may enter watercourses or sewer drains or sewer drains.

Section XIII – Disposal Considerations

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

Container Disposal: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

USEPA Waste: This product, if discarded, is not expected to be a characteristic or listed hazardous waste. If recycled in the USA, it must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by user may change the waste code(s) applicable to the disposal of this product.

Section XIV – Transport Information

LAND (DOT): Not regulated as a hazardous material for Land Transport.
(Shipping Name)

LAND (TDG): Not regulated as a dangerous good for Land Transport.
(Shipping Name)

EMERGENCY RESPONSE Not applicable

Section XV – Regulatory Information

SARA SECTIONS: 302, 304 Based on the ingredients listed in **SECTION 3**, this product does not contain 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 SECTIONS 311 AND 312 This product poses the following health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Physical Fire	No
Physical Sudden Release of Pressure	No
Physical Reactive	No

SARA SECTION 313 This product does not contain any chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

CERCLA Based on the ingredients listed in **SECTION 3**, this product does not contain any “hazardous substances” listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

CALIFORNIA: This product contains a component that list the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm: 2-Propenoic Acid, Ethyl Ester, Ethylene oxide, Propylene oxide and 1,4-Dioxane.

Section XVI – Other Information

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

MSDS Version Number: 1.0

MSDS Effective Date: 10/23/2008

MSDS Revisions: A vertical bar (|) in the left margin indicates an amendment from the previous version.

MSDS Regulation: The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

MSDS Distribution: The information in this document should be made available to all who may handle the product.

Disclaimer: Information presented herein has been compiled from information provided to us by our suppliers and other sources considered to be dependable and is accurate and reliable to the best of our knowledge. Nothing herein is to be construed as recommending any practice or the use of any product in violation of any patent or in violation of any law or regulation. It is the users’ responsibility to determine the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.