MATERIAL SAFETY DATA SHEET

Print date: 01/18/2010 *Version: 3* *Revision date: 01/18/2010*

1. COMPANY AND PRODUCT IDENTIFICATION

Product name: **FERROCOTE® 5856 BF T1**

Product code: 013315-05

Supplier:
Quaker Chemical Corporation
Quaker Park One
901 Hector Street
Conshohocken, PA 19428
610-832-4000
E-mail: she@quakerchem.com

Emergency telephone number:
* 24 HOUR TRANSPORTATION:
**CHEMTREC: 1-800-424-9300
703-527-3887 (Call collect outside of US)
* 24 HOUR EMERGENCY HEALTH & SAFETY:
**QUAKER CHEMICAL CORPORATION: (800) 523-7010(Within US only)
Outside of US call (703) 527-3887

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS

Components	CAS No.	Weight %	OSHA Ceiling Limits	OSHA TWA (final):	ACGIH Ceiling Limits	ACGIH Exposure Limits:	Vendor Exposure Limits:
Severely hydrotreated light distillates	64742-47-8	60 - 70%		None		None	Recommended TWA is 1200 mg/m³ based on total hydrocarbon vapor
Mineral Oil*	8012-95-1	20 - 30%		5mg/m³		5 mg/m³	None
Dinonylnaphthalenesulfonic acid calcium salt	57855-77-3	1 - 5%		None		None	
Hexadecylamine	143-27-1	1 - 5%		None		None	

* May include one or more of the following CAS #: 64741-88-4, 64741-89-5, 64741-44-2, 64741-96-4, 64741-97-5, 64742-46-7, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-62-7, 64742-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 69029-75-0 and 64741-95-3

3. HAZARDS IDENTIFICATION

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Emergency Overview

Combustible material
Irritating to eyes.
May cause skin irritation and/or dermatitis.
Harmful by inhalation and if swallowed.

Signal word: WARNING

Principle routes of exposure: Eyes, skin and inhalation.

Eye contact: Irritating to eyes.

Skin contact: Prolonged skin contact may defat the skin and produce dermatitis.

Inhalation: May cause irritation of respiratory tract. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion and unconsciousness. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Risk of product entering the lungs on vomiting after ingestion.

Physico-chemical properties: Combustible material

4. FIRST AID MEASURES

General advice: Call a physician immediately.
Show this safety data sheet to the doctor in attendance.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician

Skin contact: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Consult a physician if necessary.

Ingestion: Consult a physician. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Risk of product entering the lungs on vomiting after ingestion. Never give anything by mouth to an unconscious person.

Inhalation: Move to fresh air in case of accidental inhalation of vapors or decomposition products. If not breathing, give artificial respiration. In case of shortness of breath, give oxygen. Consult a physician.

Note to physician: This product contains petroleum distillates. Aspiration may cause pulmonary oedema and pneumonitis..

Medical condition aggravated by exposure: Dermatitis and asthma.

5. FIRE-FIGHTING MEASURES

Flash Point (°C): 80 **Flash point (°F):** 176 **Flash Point Method:** COC

Flammable limits in air - lower (%): Not determined **Flammable limits in air - upper (%):** Not determined

Suitable extinguishing media: Carbon dioxide (CO2), Dry chemical, Foam.

Unusual hazards: None known

Special protective equipment for fire-fighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Specific methods:	Water mist may be used to cool closed containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Remove all sources of ignition. Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapour/dust.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
Methods for cleaning up:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Ground and bond containers when transferring material

7. HANDLING AND STORAGE

Handling

Technical measures/precautions:	Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.
Safe handling advice:	To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapors or spray mist. Wear personal protective equipment. Avoid contact with skin and eyes. Wash thoroughly after handling. Keep container tightly closed.

Storage

Technical measures/storage conditions:	Keep containers tightly closed in a cool, well-ventilated place..
Incompatible products:	strong oxidizing agents
Safe storage temperature:	40-100 ° F
Shelf life:	12 months

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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Components	ACGIH Ceiling Limits	ACGIH Exposure Limits:	OSHA Ceiling Limits	OSHA TWA (final):	NIOSH - Pocket Guide - TWAs:	Vendor Exposure Limits:
Severely hydrotreated light distillates		None		None	None	Recommended TWA is 1200 mg/m^3 based on total hydrocarbon vapor
Mineral Oil*		5 mg/m³		5mg/m³	5mg/m³	None
Dinonylnaphthalenesulfonic acid calcium salt		None		None	None	None
Hexadecylamine		None		None	None	None

Engineering measures: Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment

General: Eye Wash and Safety Shower

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH/MSHA certified respirator with organic vapor/P100 filter should be worn.

Hand protection: Neoprene gloves

Skin and body protection: Long sleeved clothing

Eye protection: Safety glasses with side-shields.

Hygiene measures: Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: liquid
Color: Clear Amber
Odor: Pleasant
Boiling point/range (°C): >148
Boiling point/range (°F): >300
Vapor density: Not determined
Vapor pressure: Not determined
VOC Content Product (g/L) 3.48 lb/gal (EPA Method 24)
Solubility: Insoluble
Evaporation rate: Not determined
pH: NA
Flash Point (°C): 80
Flash point (°F): 176
Decomposition temperature: Not determined
Auto-ignition temperature (°C): Not determined
Density @ 15.5 ° C (g/cc) : 0.828
Bulk density @ 60 ° F (lb/gal): 6.91

9. PHYSICAL AND CHEMICAL PROPERTIES:

Partition coefficient (n-octanol/water, log Pow): Not determined

Explosive properties:

- **upper limit:** No data available
- **lower limit:** No data available

10. STABILITY AND REACTIVITY

Stability:
Stable under recommended storage conditions.

Conditions to avoid:
Heat, flames and sparks.

Materials to avoid:
Strong oxidizing agents

Hazardous decomposition products:
Carbon oxides, Sulphur oxides, Nitrogen oxides (nox)

Polymerisation
Not applicable

11. TOXICOLOGICAL INFORMATION

Reports of animal studies using both sexes of several species have shown that kidney effects can occur in male rats after prolonged and repeated inhalation exposures to light hydrocarbon vapors of the general type represented by this product. While the effects are of low order of severity in animals, the implications of these results have not yet been determined.

MINERAL OIL INFORMATION: Any product containing a substance for which OSHA has established a permissible exposure limit (PEL) is considered hazardous. OSHA has established a PEL of 5 mg/m^3 for worker exposure to air borne mists of mineral oils. Therefore, the presence of mineral oils brings this product within the provisions of the OSHA Hazard Communication Standard where the PEL reaches or exceeds 5 mg/m^3. Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

No toxicological information is available on the product. Data obtained on components are summarized below.

Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Severely hydrotreated light distillates	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	2000mg/kgDermal LD50Rabbit 5000mg/kgOral LD50Rat
Mineral Oil*	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	22g/kgOral LD50Mouse
Dinonylnaphthalenesulfonic acid calcium salt	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	
Hexadecylamine	This product does not contain any material shown to be a carcinogen by the National Toxicology Program (NTP).	This product does not contain any material shown to be a carcinogen by the International Agency for Research on Cancer (IARC).	This product does not contain any material shown to be a carcinogen by OSHA.	Oral LD50 1920mg/kg rat report based on similar material

12. ECOLOGICAL INFORMATION

Persistence and degradability: No information available

Mobility: No data available

Bioaccumulation: No data available

Ecotoxicity effects: No data available

Aquatic toxicity: Not Determined

Component Information

Severely hydrotreated light distillates

Ecotoxicity - Fish Species Data: LC50 (Oncorhynchus mykiss - 96h) = 2.4 mg/L

Ecotoxicity - Water Flea Data: LC50 (Den-dronereides heteropoda - 96h) = 4720 mg/L

Hexadecylamine

Ecotoxicity - Fish Species Data: EC50 0.13mg/L daphnia 48 hr
EC50 0.062mg/L algae 72 hr
report based on similar material

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

Contaminated packaging: Do not re-use empty containers

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Ground and bond containers when transferring material

14. TRANSPORT INFORMATION

U. S. DEPARTMENT OF TRANSPORTATION:

UN/NA ID Number: NA 1993
Proper shipping name: Combustible liquid n.o.s.(contains hydrotreated light petroleum distillates)
Hazard Class Combustible
Packing group: III
Emergency Response Guide Number: 128
DOT Label(s): For Bulk Packaging Only: Combustible

TDG (CANADA):

UN/NA ID Number: NA 1993
Proper shipping name: Not Regulated

IMDG/IMO:

Proper shipping name: Not Regulated

IATA/ICAO:

Proper shipping name: Not Regulated

15. REGULATORY INFORMATION

CANADIAN REGULATIONS:

Canada - WHMIS Classification Information: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Canadian Product Classification: Class B

Product Classification Graphic(s):

Component Classification Data:

Severely hydrotreated light distillates - 64742-47-8

Canada - National Pollution Release Inventory: Part 5 Substance

Mineral Oil - 8012-95-1*

WHMIS hazard class: 1 %
Uncontrolled product according to WHMIS classification criteria.

U.S. FEDERAL REGULATIONS:

OSHA Hazard Communication Standard: This product is considered to be hazardous under the OSHA Hazard Communication Standard.

SARA (311, 312) hazard class: This product possesses the following SARA Hazard Categories:
Immediate Health (Acute): Yes
Delayed Health (Chronic): Yes
Flammability: Yes
Pressure: No
Reactivity: No

Severely hydrotreated light distillates - 64742-47-8

CERCLA/SARA 313 Emission reporting: Listed

RCRA Status: Not Regulated

U.S. STATE REGULATIONS (RTK):

California Proposition 65 Status: No components are listed

Mineral Oil - 8012-95-1*
MARTK: Present
PARTK: Present

INVENTORY STATUS:

United States TSCA - Sect. 8(b) Inventory: This product complies with TSCA

Canada DSL/NDSL Inventory List All components are registered on the DSL or are exempt from registration.

16. OTHER INFORMATION

Sources of key data used to compile the data sheet: Material safety data sheets of the ingredients.

Prepared by: Quaker Chemical Corporation -Safety, Health and Environmental Affairs Group - US

Reason for revision: MSDS review

HMIS classification: **HMIS Use Dilution** **NFPA rating:**

Health: 2*	**Health** --	**Health:** 2
Flammability: 2	**Flammability** --	**Flammability:** 2
Reactivity: 0	**Reactivity** --	**Reactivity:** 0
Personal Protection: G	**Personal Protection** --	**Special:** NA

* Indicates possible chronic heath effect

Personal protection recommendations should be reviewed by purchasers. Workplace conditions are important factors in specifying adequate protection.

Disclaimer

This product's safety information is provided to assist our customers in assessing compliance with safety/health/environmental regulations. The information contained herein is based on data available to us and is believed to be accurate. However, no warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of this data, the results to be obtained from the use thereof, or the hazards connected with the use of the product. Since the use of this product is within the exclusive control of the user, it is the user's obligation to determine the conditions for safe use of the product. Such conditions should comply with all regulations concerning the product. Quaker Chemical Corporation ("Quaker") assumes no liability for any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is attributable to the gross negligence of Quaker.

End of Safety Data Sheet

Material Safety Data Sheet

1. MATERIAL AND COMPANY IDENTIFICATION

Material Name : **Shell Retinax Grease LX 2**
Uses : Automotive and industrial grease.

Manufacturer/Supplier : **SOPUS Products**
PO BOX 4427
Houston, TX 77210-4427
USA
MSDS Request : 877-276-7285

Emergency Telephone Number
Spill Information : 877-242-7400
Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS No.	Concentration
Zinc naphthenate	12001-85-3	1.00 - 2.00 %

A lubricating grease consisting of highly-refined mineral oil and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance and Odour : Red. Semi-solid at ambient temperature. Slight hydrocarbon.

Health Hazards : High-pressure injection under the skin may cause serious damage including local necrosis.

Safety Hazards : Not classified as flammable but will burn.

Environmental Hazards : Not classified as dangerous for the environment.

Health Hazards : 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 : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Eye Contact : May cause slight irritation to eyes.

Ingestion : Low toxicity if swallowed.

Other Information : High-pressure injection under the skin may cause serious damage including local necrosis. Used grease may contain harmful impurities.

Signs and Symptoms : Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection. 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	:	Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.
Environmental Hazards	:	Not classified as dangerous for the 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.

4. 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. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.
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. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point	:	> 200 °C / 392 °F (COC)
Lower / upper Flammability or Explosion limits	:	Typical 1 - 10 %(V)(based on mineral oil)
Auto ignition temperature	:	> 320 °C / 608 °F
Specific Hazards	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases

(smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

Suitable Extinguishing Media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media	:	Do not use water in a jet.
Protective Equipment for Firefighters	:	Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. 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	:	Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

7. HANDLING AND STORAGE

General Precautions	:	Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Handling	:	Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
Storage	:	Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50 °C / 32 - 122 °F
Recommended Materials	:	For containers or container linings, use mild steel or high density polyethylene.
Unsuitable Materials	:	PVC.
Additional Information	:	Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Mist.)		5 mg/m3	

Oil mist, mineral	ACGIH	STEL(Mist.)		10 mg/m3	

Additional Information : Due to the product's semi-solid consistency, generation of mists and dusts is unlikely to occur.

Exposure Controls : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

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 : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Red. Semi-solid at ambient temperature.
Odour	:	Slight hydrocarbon.
pH	:	Not applicable.
Initial Boiling Point and Boiling Range	:	Data not available
Dropping point	:	Typical 245 °C / 473 °F
Flash point	:	> 200 °C / 392 °F (COC)
Lower / upper Flammability or Explosion limits	:	Typical 1 - 10 %(V) (based on mineral oil)
Auto-ignition temperature	:	> 320 °C / 608 °F
Vapour pressure	:	< 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Density	:	Typical 900 kg/m3 at 15 °C / 59 °F
Water solubility	:	Negligible.
n-octanol/water partition coefficient (log Pow)	:	> 6 (based on information on similar products)
Kinematic viscosity	:	Not applicable. 300 mm2/s
Vapour density (air=1)	:	> 1 (estimated value(s))
Evaporation rate (nBuAc=1)	:	Data not available

10. STABILITY AND REACTIVITY

Stability	:	Stable.
Conditions to Avoid	:	Extremes of temperature and direct sunlight.
Materials to Avoid	:	Strong oxidising agents.
Hazardous Decomposition Products	:	Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	:	Information given is based on data on the components and the toxicology of similar products.
Acute Oral Toxicity	:	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	:	Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity	:	Not considered to be an inhalation hazard under normal conditions of use.
Skin Irritation	:	Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Irritation	:	Expected to be slightly irritating.
Respiratory Irritation	:	Inhalation of vapours or mists may cause irritation.
Sensitisation	:	Not expected to be a skin sensitiser.
Repeated Dose Toxicity	:	Not expected to be a hazard.
Mutagenicity	:	Not considered a mutagenic hazard.
Carcinogenicity	:	Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic

effects.

Reproductive and Developmental Toxicity	:	Not expected to be a hazard.
Additional Information	:	Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal. ALL used grease should be handled with caution and skin contact avoided as far as possible. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

Acute Toxicity	:	Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.
Mobility	:	Semi-solid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
Persistence/degradability	:	Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
Bioaccumulation	:	Contains components with the potential to bioaccumulate.
Other Adverse Effects	:	Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. 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 recognised 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.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)
This material is not subject to DOT regulations under 49 CFR Parts 171-180.

IMDG
This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)
This material is not classified as dangerous under IATA regulations.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status

EINECS	All components listed or polymer exempt.
TSCA	All components listed.
DSL	Not all components listed.

SARA Hazard Categories (311/312)
No SARA 311/312 Hazards.

State Regulatory Status

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Rating (Health, Fire, Reactivity)	:	0, 1, 0
MSDS Version Number	:	1.0

Material Safety Data Sheet

MSDS Effective Date	:	04/01/2010
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	:	The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.