



# Material Safety Data Sheet

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## 1. COMPANY AND PRODUCT IDENTIFICATION

**Product code:** 011527-11 03  
**Product name:** FERROCOTE ® 61 MAL HCL 1

**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:
Mineral Oil*	8012-95-1	60 - 70%		5mg/m <sup>3</sup>		5 mg/m <sup>3</sup>	None
Sulfonic acids, petroleum, calcium salts, overbased	68783-96-0	5 - 10%		None		None	

\* May include one or more of the following CAS #: 64741-88-4, 64741-89-5, 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 and 64742-65-0, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1.

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

Irritating to eyes.  
May cause skin irritation and/or dermatitis.  
May cause irritation of respiratory tract.  
May be harmful if swallowed.

**Signal word:** CAUTION  
**Principle routes of exposure:** Eyes, skin and inhalation.  
**Eye contact:** Irritating to eyes.

<b>Skin contact:</b>	Repeated or prolonged contact with base product may cause irritation leading to various skin disorders such as dermatitis, oil acne, or folliculitis.
<b>Inhalation:</b>	Inhalation of vapor (generated at high temperatures only) or oil mist from this product may cause mild irritation of the upper respiratory tract.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
<b>Physico-chemical properties:</b>	No hazards resulting from material as supplied.

#### 4. FIRST AID MEASURES

<b>General advice:</b>	If symptoms persist, call a physician.
<b>Eye contact:</b>	Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.
<b>Skin contact:</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use.. If skin irritation persists, call a physician.
<b>Ingestion:</b>	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	Move to fresh air in case of accidental inhalation of vapors. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.
<b>Notes to physician:</b>	Treat symptomatically.
<b>Medical condition aggravated by exposure:</b>	Dermatitis.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash point (°C):</b> 204	<b>Flash point (°F):</b> 400	<b>Flash Point Method:</b> COC
<b>Flammable limits in air - upper (%):</b> Not determined	<b>Flammable limits in air - lower (%):</b> Not determined	
<b>Suitable extinguishing media:</b>	Use dry chemical, CO2, water spray or `alcohol` foam.	
<b>Unusual hazards:</b>	None known.	
<b>Special protective equipment for fire-fighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.	
<b>Specific methods:</b>	Water mist may be used to cool closed containers.	

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions:</b>	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not breathe vapour/dust.
<b>Environmental precautions:</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up:</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

## 7. HANDLING AND STORAGE

### Handling

**Technical measures/precautions:** Provide sufficient air exchange and/or exhaust in work rooms.

**Safe handling advice:** Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal protective equipment. Wash thoroughly after handling.

### Storage

**Technical measures/storage conditions:** Store at room temperature in the original container

**Incompatible products:** strong oxidizing agents

**Safe storage temperature:** 40-110 °F  
4 - 45 °C

**Shelf life:** 6 months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	ACGIH Ceiling Limits	ACGIH Exposure Limits:	OSHA Ceiling Limits	OSHA TWA (final):	NIOSH - Pocket Guide - TWAs:	Vendor Exposure Limits:
Mineral Oil*		5 mg/m <sup>3</sup>		5mg/m <sup>3</sup>	5mg/m <sup>3</sup>	None
Sulfonic acids, petroleum, calcium salts, overbased		None		None	None	None

**Engineering measures:** Ensure adequate ventilation.

### 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/HEPA filters should be worn.

**Hand protection:** Neoprene gloves - 0.75 mm - 30 min.

**Skin and body protection:** Usual safety precautions while handling the product will provide adequate protection against this potential effect.

**Eye protection:** Safety glasses with side-shields.

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



## 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Physical state:** Liquid

<b>Color:</b>	Clear, translucent, dark green
<b>Odour:</b>	Mild, Bland
<b>Boiling point/boiling range (°C):</b>	>149
<b>Boiling point/range (°F):</b>	>300
<b>Vapour pressure:</b>	0.22 mm Hg @ 25 C.
<b>Vapour density:</b>	Not determined
<b>VOC Content Product</b>	0.23 lb/gal (27.6g/L) - (ASTM Method D-2369) run at 110° C +/- 5° C
<b>Solubility:</b>	Insoluble
<b>Evaporation rate:</b>	Not determined
<b>pH:</b>	NA
<b>Flash point (°C):</b>	204
<b>Flash point (°F):</b>	400
<b>Decomposition temperature:</b>	Not determined
<b>Auto-ignition temperature:</b>	Not determined
<b>Density @ 15.5 ° C (g/cc) :</b>	0.953
<b>Bulk density @ 60 ° F (lb/gal):</b>	7.95
<b>Partition coefficient</b>	Not determined
<b>(n-octanol/water, log Pow):</b>	
<b>Explosive properties:</b>	
- upper limit:	No data available
- lower limit:	No data available

## 10. STABILITY AND REACTIVITY

### Stability:

Stable under recommended storage conditions.

### Conditions to avoid:

None known

### Materials to avoid:

Strong oxidising agents

### Hazardous decomposition products:

Carbon oxides, Nitrogen oxides (nox), Sulphur oxides

### Polymerization:

Not applicable

## 11. TOXICOLOGICAL INFORMATION

**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<sup>3</sup> 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<sup>3</sup>. 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.

Skin irritation studies have been performed on this product.

Skin irritation-expected to be a dermal non-irritant (in vitro dermal irritation assay method).

...

Data obtained on components are summarized below.

Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
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
Sulfonic acids, petroleum, calcium salts, overbased	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.	20000mg/kgDermal LD50Rabbit 20000mg/kgOral LD50Rat

## 12. ECOLOGICAL INFORMATION

<b>Persistence and degradability:</b>	No information available
<b>Mobility:</b>	No data available
<b>Bioaccumulation:</b>	No data available
<b>Ecotoxicity effects:</b>	No data available
<b>Aquatic toxicity:</b>	Not Determined

## 13. DISPOSAL CONSIDERATIONS

<b>Waste from residues/unused products:</b>	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.
<b>Contaminated packaging:</b>	Do not re-use empty containers
<b>Methods for cleaning up:</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)..

## 14. TRANSPORT INFORMATION

### U. S. DEPARTMENT OF TRANSPORTATION:

Proper shipping name: Not Regulated

### TDG (CANADA):

Proper shipping name: Not Regulated

### IMDG/IMO:

Proper shipping name: Not Regulated

### IATA/ICAO:

Proper shipping name: Not Regulated

## 15. REGULATORY INFORMATION

### CLASSIFICATION AND LABELING

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

**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.

**Product Classification:** None Required  
**Product Classification Graphic(s):**

#### **Component Classification Data:**

##### ***Mineral Oil\* - 8012-95-1***

**WHMIS hazard class:** 1 % (English Item 1224, French Item 977)  
Uncontrolled product according to WHMIS classification criteria

#### **Canadian National Pollution Inventory Data:**

### U.S. REGULATIONS:

**SARA (311, 312) hazard class:** This product possesses the following SARA Hazard Categories:

**Immediate Health (Acute):** Yes  
**Delayed Health (Chronic):** No  
**Flammability:** No  
**Pressure:** No  
**Reactivity:** No

**RCRA Status** Not Regulated

### 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 Inventory List -**

DSL Compliance has not been determined

**EC EINECS/ELINCS/NLP list:**

Compliance has not been determined

**16. OTHER INFORMATION**

**Sources of key data used to compile the data sheet:**

Material safety data sheets of the ingredients.

**Reason for revision:**

This data sheet contains changes from the previous version in section(s) 2, 7 and 9

**Prepared by:**

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

**HMIS classification:**

**NFPA rating:**

**Health:**

1

**Health:**

1

**Flammability:**

1

**Flammability:**

1

**Reactivity:**

0

**Reactivity:**

0

**Personal Protection:**

B

**Special:**

NA

\* Indicates possible chronic health 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**