



# SAFETY DATA SHEET

Print date: 05/29/2015

Revision Date: 05/29/2015

Revision Number: 1

## 1. COMPANY AND PRODUCT IDENTIFICATION

### Product identifier

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

### Other means of identification

**Synonyms** No information available.

### Application

**Recommended Use** Corrosion Preventive  
**Uses advised against** For industrial use only

### Supplier/Manufacturer:

**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. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2A
-----------------------------------	-------------

### Label Elements

#### **Emergency Overview**

#### **WARNING**

#### **Hazard Statements**

Causes serious eye irritation



**Appearance** Clear to Translucent Dark green

**Physical State** Liquid

**Odor** Mild, Bland

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

**Hazards not otherwise classified (HNOC)**

None known

**Other Information**

Causes mild skin irritation.

**Unknown acute toxicity** 0.4486501% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight %
Petroleum distillate	Proprietary	5 - 10%
Sulfonic acids, petroleum, sodium salts	68608-26-4	1 - 5%
Sulfonate	Proprietary	<1%
Mineral oil	Proprietary	<1%

The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

**General advice:** No hazards which require special first aid measures. Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician.

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

**Skin contact:** Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. 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>Note to physician:</b>	Treat symptomatically.
<b>Medical condition aggravated by exposure:</b>	None known.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media:</b>	Use dry chemical, CO2, water spray or `alcohol` foam.
<b>Specific hazards:</b>	Do not allow material to contaminate ground water system.
<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>	Ensure adequate ventilation. Do not breathe vapour/dust. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling
<b>Environmental precautions:</b>	Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up:</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

<b>Technical measures/precautions:</b>	Provide sufficient air exchange and/or exhaust in work rooms.
<b>Safe handling advice:</b>	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.

### Storage

<b>Technical measures/storage conditions:</b>	Store at room temperature in the original container
<b>Incompatible products:</b>	Strong oxidizing agents
<b>Safe storage temperature:</b>	4 - 40 °C
<b>Shelf life:</b>	6 months

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components	ACGIH Exposure Limits	OSHA TWA (final)	NIOSH - Pocket Guide
Mineral Oil*	5 mg/m <sup>3</sup>	5mg/m <sup>3</sup>	5mg/m <sup>3</sup>
Calcium carbonate	None	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (TWA) 5 mg/m <sup>3</sup> (TWA)

**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-certified respirator with organic vapor/P100 filter should be worn.

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

**Hand protection:** Neoprene gloves

**Skin and body protection:** Long sleeved clothing

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



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Clear to Translucent Dark green
<b>Odor</b>	Mild, Bland
<b>Odor Threshold</b>	No information available.
<b>pH concentrate:</b>	No information available
<b>pH Dilution</b>	No information available
<b>Melting/freezing point</b>	No information available
<b>Boiling Point/Range</b>	> 149 °C / 300 °F
<b>Flash Point</b>	204 °C / 400 °F
<b>Method</b>	No information available
<b>Evaporation rate</b>	No information available

Flammability Limits in Air upper flammability limit	No information available.
lower flammability limit	No information available.
VOC Content	No information available
VOC Content Product (lb/gal)	0.23 lb/gal (27.68 g/L) using ASTM Method D-2369 run at 110 C +/- 5 C.
VOC	SCAQMD VOC: 36.38 g/L
Vapor pressure	0.22 mmHg @ 25 C
Vapor density	No information available.
Specific Gravity (g/cc, 15 C)	0.953
Bulk Density (lb/gal, 15 C)	7.95
Water Solubility	Insoluble
Solubility in other solvents	No information available.
Partition coefficient: n-octanol/water	No information available
Autoignition temperature	No information available
Decomposition Temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Molecular Weight	No information available

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	None known.
<b>Materials to avoid:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	None under normal use.
<b>Hazardous Polymerization:</b>	Not applicable.

## 11. TOXICOLOGICAL INFORMATION

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

### Information on likely routes of exposure

<b>Inhalation</b>	May cause irritation of respiratory tract.
-------------------	--

**Eye Contact** Corrosive to the eyes and may cause severe damage including blindness.

**Skin Contact** Irritating to skin.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Components	LD50 Oral	LD50 Dermal	LC50 Inhalation
Petroleum distillate	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	2.18 mg/L ( Rat ) 4 h
Sulfonic acids, petroleum, sodium salts	-	-	-
Sulfonate	-	-	-
Mineral oil	-	-	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen

Components	IARC Carcinogens	NTP	OSHA - Select Carcinogens
Petroleum distillate	Group 1 (Carcinogenic to Humans)	Not listed	Present
Sulfonic acids, petroleum, sodium salts	Not listed	Not listed	Not listed
Sulfonate	Not listed	Not listed	Not listed
Mineral oil	Group 1 (Carcinogenic to Humans)	Not listed	Present

**Sensitization** No information available.

**Mutagenic effects:** No information available.

**Reproductive Toxicity** No information available.

**Developmental Toxicity** No information available.

**Teratogenic** No information available.

**Specific target organ systemic toxicity (single exposure)** No information available.

**Specific target organ systemic toxicity (repeated exposure)** No information available.

**Aspiration hazard** No information available.

**Additional information on toxicological effects**

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.

## 12. ECOLOGICAL INFORMATION

Components	Ecotoxicity - Fish Species Data:	Ecotoxicity - Freshwater Algae Data:	Ecotoxicity - Water Flea Data:
Petroleum distillate	5005	>1000mg/L	EC50 (Daphnia magna - 48h) = 1000 mg/L
Sulfonic acids, petroleum, sodium salts	No data	No data	No data
Sulfonate	No data	No data	No data
Mineral oil	5005	>1000mg/L	No data

17.51944% of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

Components	Octanol/water partition coefficient
Petroleum distillate	-
Sulfonic acids, petroleum, sodium salts	-
Sulfonate	-
Mineral oil	-

**Mobility:** No data available

**Ozone:** No data available

## 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). Sweep up and shovel into suitable containers for disposal.

## 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

### Federal Regulations

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

### CERCLA/SARA Information:

**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

Components	Hazardous Substances and RQs	Extremely Hazardous Substances and TPQs	SARA 313 Emission Reporting
Petroleum distillate	Not listed	Not listed	Not listed
Sulfonic acids, petroleum, sodium salts	Not listed	Not listed	Not listed
Sulfonate	Not listed	Not listed	Not listed
Mineral oil	Not listed	Not listed	Not listed

### Clean Air and Clean Water Acts:

Components	Hazardous Air Pollutants	CWA - Hazardous Substances	CWA - Toxic Pollutants	CWA - Priority Pollutants
Petroleum distillate	Not listed	Not listed	Not listed	Not listed
Sulfonic acids, petroleum, sodium salts	Not listed	Not listed	Not listed	Not listed
Sulfonate	Not listed	Not listed	Not listed	Not listed
Mineral oil	Not listed	Not listed	Not listed	Not listed

### U.S. STATE REGULATIONS (RTK):

Components	California Proposition 65	PARTK	MI Critical Materials	NJRTK	MARTK
Petroleum distillate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sulfonic acids, petroleum, sodium salts	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sulfonate	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Mineral oil	Not Listed	Not Listed	Not Listed	Not Listed	Carcinogen Extraordinarily hazardous

**California Proposition 65 Status:** No components are listed



**SCAQMD Rule 1144**

South Coast Air Quality Management District (SCAQMD) Rule 1144: Rule 1144 applies to all persons who manufacture or who use metalworking fluids and direct-contact lubricants in all or parts of the Southern California Counties: Los Angeles, Orange, Riverside and San Bernadino.

Effective 01/01/2012 The Fluid Categories and VOC Limits are:

Direct Contact Lubricant.....50 g/l (0.42 lb/gal)

Metalworking Fluid\*

1. Metal Forming.....75 g/l (0.63 lb/gal)
2. Metal Removal.....75 g/l (0.63 lb/gal)
3. Metal Protecting.....50 g/l (0.42 lb/gal)

See Section 9 for the VOCs for this product.

Product is classified as Metal Protecting

**RCRA Status:** Not regulated

**CANADIAN REGULATIONS:**

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

**Canadian Product Classification:** Not Regulated

**Product Classification Graphic(s):**

**Component Classification Data:**

Components	WHMIS hazard class	CEPA Schedule I	Challenge Substances
Petroleum distillate	None	Not listed	Not listed
Sulfonic acids, petroleum, sodium salts	None	Not listed	Not listed
Sulfonate	None	Not listed	Not listed
Mineral oil	None	Not listed	Not listed

**INVENTORY STATUS:**

**United States TSCA - Sect. 8(b) Inventory:** This product does not comply with TSCA

**Canada DSL/NDSL Inventory List** All components are either on the DSL or the NDSL

## 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

**Revision Date:** 05/29/2015

**Reason for revision:** New Format.

**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. The company referenced in this Safety Data Sheet 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 such company.

**End of Safety Data Sheet**