



# MATERIAL SAFETY DATA SHEET

Print date: 01/20/2011

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## 1. COMPANY AND PRODUCT IDENTIFICATION

**Product name:** FERROCOTE® WSS HCL CS  
**Product code:** 020207-01

**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
Naphtha (petroleum), hydrotreated heavy	64742-48-9	70 - 80%					
Mineral Oil*	8012-95-1	15 - 20%		5mg/m <sup>3</sup>		5 mg/m <sup>3</sup>	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

### Emergency Overview

Combustible material  
Severe eye irritation.  
May cause skin irritation and/or dermatitis.  
Harmful by inhalation and if swallowed.

**Signal word:** CAUTION  
**Principle routes of exposure:** Eyes, skin and inhalation.  
**Eye contact:** Severe eye irritation.  
**Skin contact:** Prolonged skin contact may defat the skin and produce dermatitis.

<b>Inhalation:</b>	May cause irritation of respiratory tract. A component 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.
<b>Ingestion:</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Risk of product entering the lungs on vomiting after ingestion.
<b>Physico-chemical properties:</b>	Combustible material.

#### 4. FIRST AID MEASURES

<b>General advice:</b>	Call a physician immediately. Show this safety data sheet to the doctor in attendance.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician
<b>Skin contact:</b>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Consult a physician if necessary.
<b>Ingestion:</b>	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.
<b>Inhalation:</b>	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.
<b>Note to physician:</b>	This product contains petroleum distillates. Aspiration may cause pulmonary oedema and pneumonitis.
<b>Medical condition aggravated by exposure:</b>	Dermatitis and asthma.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash Point (°C):</b> 77	<b>Flash Point (°F):</b> 170	<b>Flash Point Method:</b> COC
<b>Flammable limits in air - lower (%):</b> Not determined	<b>Flammable limits in air - upper (%):</b> Not determined	
<b>Suitable extinguishing media:</b>	Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Foam.	
<b>Unusual hazards:</b>	Vapors are heavier than air and may spread along floors. Keep away from open flames, hot surfaces and sources of ignition. Do not cut, drill, grind, or weld on or near container even when empty.	
<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

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- Personal precautions:** Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe vapour/dust. Avoid contact with skin and eyes
- Environmental precautions:** Do not flush into surface water or sanitary sewer system.
- 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. Keep product and empty container away from heat and sources of ignition. 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. Keep product and empty container away from heat and sources of ignition.
- Incompatible products:** Strong oxidizing agents
- Safe storage temperature:** 40-100 ° F
- Shelf life:** 6 months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components	OSHA Ceiling Limits	OSHA TWA (final)	ACGIH Ceiling Limits	ACGIH Exposure Limits	NIOSH - Pocket Guide	Vendor Exposure Limits
Naphtha (petroleum), hydrotreated heavy	None	None	None	None	None	None
Mineral Oil*	None	5mg/m <sup>3</sup>	None	5 mg/m <sup>3</sup>	5mg/m <sup>3</sup>	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-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

<b>Physical state:</b>	Liquid
<b>Color</b>	Clear Amber
<b>Odor</b>	Solvent
<b>Boiling point/range (°C):</b>	~ 179.4
<b>Boiling point/range (°F):</b>	~ 355
<b>Vapour density:</b>	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Solubility in water</b>	Insoluble
<b>Evaporation rate:</b>	Not determined
<b>pH:</b>	NA
<b>Flash Point (°C):</b>	77
<b>Flash Point (°F):</b>	170
<b>Decomposition temperature (°C):</b>	Not determined
<b>Auto-ignition temperature (°C):</b>	Not determined
<b>Density @ 15.5 °C (g/cc):</b>	0.815
<b>Bulk density @ 60 ° F (lb/gal):</b>	6.80
<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Explosive Limits:</b>	
- 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 acids and strong bases. Strong oxidizing agents. Selected amines.

**Hazardous decomposition products:**

Carbon oxides. Nitrogen oxides (nox). Sulphur oxides.

**Hazardous Reactions:**

Not applicable

## 11. TOXICOLOGICAL INFORMATION

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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<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.

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

Components	IARC Carcinogens	NTP:	OSHA - Select Carcinogens	Acute Toxicity
Naphtha (petroleum), hydrotreated heavy	Not listed as carcinogenic or possibly carcinogenic to humans	Not listed as known or reasonably anticipated to be a human carcinogen	Not listed as a select carcinogen	Rabbit Dermal LD50 > 3160 mg/kg Rat Oral LD50 > 5000 mg/kg
Mineral Oil*	Not listed as carcinogenic or possibly carcinogenic to humans	Not listed as known or reasonably anticipated to be a human carcinogen	Not listed as a select carcinogen	Mouse Oral LD50 = 22 g/kg

## 12. ECOLOGICAL INFORMATION

**Persistence and degradability:** No information available

**Mobility:** No data available

**Bioaccumulation:** Not available

**Ecotoxicity effects:** No data available

**Aquatic toxicity:** Not Determined

### Component Information

Components	Ecotoxicity - Fish Species Data:	Ecotoxicity - Freshwater Algae Data:	Ecotoxicity - Water Flea Data:
Naphtha (petroleum), hydrotreated heavy	LC50 (Pimephales promelas - 96h) = 2200 mg/L	No data	LC50 (Chaetogammarus marinus - 96h) = 2.6 mg/L
Mineral Oil*	No data	No data	No data

## 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

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### 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:

Components	WHMIS hazard class	CEPA Schedule I	Challenge Substances
Naphtha (petroleum), hydrotreated heavy	B3	Not listed	Not listed
Mineral Oil*	1 % Uncontrolled product according to WHMIS classification criteria.	Not listed	Not listed

### U.S. 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: Yes  
 Pressure: No  
 Reactivity: No

Components	Hazardous Substances and RQs	Extremely Hazardous Substances and TPQs	SARA 313 Emission Reporting
Naphtha (petroleum), hydrotreated heavy	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
Naphtha (petroleum), hydrotreated heavy	Not listed	Not listed	Not listed	Not listed
Mineral Oil*	Not listed	Not listed	Not listed	Not listed

RCRA Status: Not regulated

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

Components	California Proposition 65	PARTK	MI Critical Materials	NJRTK	MARTK
Naphtha (petroleum), hydrotreated heavy	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Mineral Oil*	Not Listed	Present	Not Listed	1437	Present

**INVENTORY STATUS:**

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

Canada DSL/NDSL Inventory List: This product complies with DSL

**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: This data sheet contains changes from the previous version in section(s) 9 - corrected density.

**HMIS classification:****Health:**

2

**Flammability:**

2

**Reactivity:**

0

**Personal Protection:**

G

**HMIS Use Dilution****Health**

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**Flammability**

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**Reactivity**

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**Personal Protection**

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**NFPA rating:****Health:**

2

**Flammability:**

2

**Reactivity:**

0

**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**