



Material Safety Data Sheet

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1. COMPANY AND PRODUCT IDENTIFICATION

Product code: 003375-08 01
Product name: FERROCOTE® PCL 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

Listed Components	Weight %	CAS No.	OSHA TWA (final):	ACGIH Exposure Limits:
Ammonium dichromate	<1%	7789-09-5	3mg/m ³	0.01 mg/m ³ 0.05 mg/m ³ 0.5 mg/m ³
2-Butoxyethanol	10 - 15%	111-76-2	3mg/m ³ 3ppm	20 ppm

3. HAZARDS IDENTIFICATION

Emergency Overview

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

Principle routes of exposure: Eyes, skin and inhalation.

Signal word: WARNING

Eye contact: Irritating to eyes.

Skin contact: Prolonged and/or repeated contact may cause irritation and redness.

Inhalation: Inhalation of high vapor concentrations may cause symptoms such as headache, dizziness, tiredness, nausea and vomiting

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Physico-chemical properties: No hazards resulting from material as supplied.

4. FIRST AID MEASURES

General advice: 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 plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Consult a physician.
Ingestion: Call a physician immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person.
Inhalation: 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.
Notes to physician: This product contains ammonium dichromate
Medical condition aggravated by exposure: Dermatitis

5. FIRE-FIGHTING MEASURES

Flash point (°C): NA **Flash point (°F):** NA **Flash Point Method:** Not applicable
Flammable limits in air - lower (%): Not determined **Flammable limits in air - upper (%):** Not determined
Suitable extinguishing media: Use dry chemical, CO₂, water spray or 'alcohol' 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: Ensure adequate ventilation.
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).

7. HANDLING AND STORAGE

Handling

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

Safe handling advice: In case of insufficient ventilation, wear suitable respiratory equipment.

Storage

Technical measures/storage conditions: DO NOT FREEZE.. Store at room temperature in the original container.

Incompatible products: No special restrictions on storage with other products

Safe storage temperature: 4 - 40 °C

Shelf life: 6 months

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Listed Components	ACGIH Exposure Limits:	OSHA TWA (final):	NIOSH - Pocket Guide - TWAs:	Vendor Exposure Limits:
Ammonium dichromate	0.01 mg/m ³ 0.05 mg/m ³ 0.5 mg/m ³	3mg/m ³	0.5mg/m ³ TWA	
2-Butoxyethanol	20 ppm	3mg/m ³ 3ppm	24mg/m ³ TWA 5ppmTWA	

Engineering measures: Ensure adequate ventilation.

Personal Protective Equipment

General: Eye Wash and Safety Shower

Respiratory protection: In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hand protection: Neoprene gloves

Skin and body protection: Chemical resistant apron. Long sleeved clothing.

Eye protection: Goggles.

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



9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: Liquid.
Color: clear, yellow
Odour: Ammoniacal
Boiling point/range (°C): >100
Boiling point/range (°F): >212
Vapour density: Not determined
Vapour pressure: Not determined
Solubility: Completely soluble
Evaporation rate: Not determined
VOC Content Product: Not determined
pH: 7.5 - 8.5
Flash point (°C): NA
Flash point (°F): NA

Decomposition temperature: Not determined
Autoignition temperature: Not determined
Density @ 15.5 ° C (g/cc) : 1.02
Bulk density @ 60 ° F (lb/gal): 8.51
Partition coefficient Not determined
(n-octanol/water, log Pow):
Explosive properties:
- **upper explosion limit:** No data available
- **lower explosion limit:** No data available

10. STABILITY AND REACTIVITY

Conditions to avoid:

None known

Materials to avoid:

Strong acids and oxidising agents

Hazardous decomposition products:

None under normal use

Stability:

Stable under recommended storage conditions.

Polymerization:

Not applicable

11. TOXICOLOGICAL INFORMATION

Overexposure to certain chromium compounds may result in irreversible respiratory and other target organ diseases based on tests with laboratory animals. Under the National Toxicology Program, chromium and certain chromium compounds are listed as carcinogens.

This product contains ethylene glycol monobutyl ether which has been shown to cause red blood cell hemolysis with secondary injury to the kidney and liver in laboratory animals. However humans appear to be resistant to this effect.

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

Listed Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Ammonium dichromate	Known Carcinogen	Monograph 49, 1990; (Evaluated as a group)	Present	
2-Butoxyethanol	male rat-no evidence; female rat-equivocal evidence; male mice-some evidence; female mice-some evidence	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.	1230mg/kgOral LD50Mouse 220mg/kgDermal LD50Rabbit 450ppmInhalation LC50Rat 470mg/kgOral LD50Rat 700ppmInhalation LC50Mouse

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

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:

Take up mechanically and collect in suitable container for disposal.

Listed Components

Ammonium dichromate
7789-09-5

RCRA - Hazardous Constituents hazardous constituent - no waste number
-Appendix

RCRA - D Series - Maximum Concentration 5.0 mg/L regulatory level; waste number D007

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

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: Class D2B - Poisonous and Infectious Material: Other toxic effects - includes irritants, skin sensitizers and/ or chronic health effects

Product Classification Graphic(s):



Component Classification Data:

Ammonium dichromate - 7789-09-5

WHMIS hazard class: C; D1A; D2A
Uncontrolled product according to WHMIS classification criteria.

2-Butoxyethanol - 111-76-2

WHMIS hazard class: B3; D1A; D2B

U.S. REGULATIONS:

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

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

Ammonium dichromate - 7789-09-5

CERCLA/SARA 313 Emission reporting Listed

2-Butoxyethanol - 111-76-2

CERCLA/SARA 313 Emission reporting Listed

RCRA Status Chromium compounds: D007

Ammonium dichromate - 7789-09-5
CAA - 1990 Hazardous Air Pollutants:
Clean Water Act - Priority Pollutants

Listed
Listed

2-Butoxyethanol - 111-76-2
CAA - 1990 Hazardous Air Pollutants:

Listed

STATE REGULATIONS (RTK):

California Proposition 65 Status:
Listed Components

No components are listed
carcinogen, initial date 2/27/87

**Ammonium dichromate -
7789-09-5**

Ammonium dichromate - 7789-09-5
MARTK:

NJRTK:

PARTK:

Carcinogen; Extraordinarily hazardous
Present
sn 0097
sn 0432
[present]
environmental hazard
environmental hazard; special hazardous substance (any
compound of this substance is also an environmental
hazard)
special hazardous substance

2-Butoxyethanol - 111-76-2
MARTK:
NJRTK:
PARTK:

Present
sn 0275
[present]
environmental hazard

Listed Components

Michigan critical materials register list:

Annual usage threshold = 100 pounds; All compounds containing the listed elements must
also be reported.

**Ammonium dichromate -
7789-09-5**

INVENTORY STATUS:

United States TSCA - Sect. 8(b) Inventory:

This product complies with TSCA

Canada DSL Inventory List -

This product complies with DSL

Canada NDSL Inventory List -

NDSL compliance has not been determined

EU EINECS/ELINCS/NLP list:

This product complies with EINECS

16. OTHER INFORMATION

Sources of key data used to compile the data sheet:

Material safety data sheets of the ingredients.

Reason for revision:

New Format

Prepared by:

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

HMIS classification:

NFPA rating:

Health:
2*

Health:
2

Flammability:
0

Flammability:
0

Reactivity:
0

Reactivity:
0

Personal Protection:
H

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