



# Material Safety Data Sheet

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## 1. COMPANY AND PRODUCT IDENTIFICATION

**Product code:** 37R-4  
**Product name:** KEMIKO ACID STAIN ENGLISH RED 37R-4

**Supplier:**  
Epmar Corporation  
13210 E. Barton Circle  
Santa Fe Springs, CA 90605-3254  
Phone: 562-946-8781  
FAX: 562-944-9958  
E-MAIL: info@epmarcorp.com  
E-MAIL: she@quakerchem.com  
(For Health and Safety Questions)

**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:
Ferrous chloride	7758-94-3	20 - 30%		None		1 mg/m <sup>3</sup>	
Hydrochloric acid	7647-01-0	5 - 10%	5ppm 7mg/m <sup>3</sup>	None	2ppm	None	
Chromic chloride, basic	50925-66-1	1 - 5%		None		None	

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

Risk of serious damage to eyes  
The product causes burns of eyes, skin and mucous membranes.  
Irritating to respiratory system.  
Harmful by inhalation, in contact with skin and if swallowed.

**Signal word:** DANGER  
**Principle routes of exposure:** Eyes, Skin, Inhalation  
**Eye contact:** Corrosive to the eyes and may cause severe damage including blindness.  
**Skin contact:** Contact causes severe skin irritation and possible burns.

**Inhalation:** Irritating to respiratory system. Inhalation of high vapor concentrations may cause burns to the respiratory tract which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function.

**Ingestion:** Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine. Liver and kidney injuries may occur. Large exposures may be fatal. Risk of product entering the lungs on vomiting after ingestion.

**Physico-chemical properties:** No hazards resulting from material as supplied.

#### 4. FIRST AID MEASURES

**General advice:** Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water and seek medical advice.

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

**Skin contact:** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. Consult a physician.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. If victim is conscious, give water. 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:** Treat symptomatically.

**Medical condition aggravated by exposure:** Dermatitis and asthma.

#### 5. FIRE-FIGHTING MEASURES

**Flash point (°C):** NA                      **Flash point (°F):** NA                      **Flash Point Method:** Not applicable

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

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or 'alcohol' foam.

**Unusual hazards:** Gives off hydrogen by reaction with metals. In the event of fire the following can be released: Hydrogen chloride gas.

**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. Use personal protective equipment.

**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:** Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Keep container tightly closed. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use

### Storage

**Technical measures/storage conditions:** DO NOT FREEZE.. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.. Keep away from direct sunlight.

**Incompatible products:** See Section 10, Materials to avoid.

**Safe storage temperature:** 40-100 ° F

**Shelf life:** 12 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:
Ferrous chloride		1 mg/m <sup>3</sup>		None	1mg/m <sup>3</sup> TWA	None
Hydrochloric acid	2ppm	None	5ppm 7mg/m <sup>3</sup>	None	5ppmCeiling 7mg/m <sup>3</sup> Ceilin g	None
Chromic chloride, basic		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

**Skin and body protection:** Chemical resistant apron, Long sleeved clothing

**Eye protection:** Goggles. Face-shield

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



## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical state:</b>	Liquid
<b>Color:</b>	dark green
<b>Odour:</b>	Strong, Pungent
<b>Boiling point/boiling range (°C):</b>	~100
<b>Boiling point/range (°F):</b>	~212
<b>Vapour pressure:</b>	Not determined
<b>Vapour density:</b>	Not determined
<b>VOC Content Product</b>	Not determined
<b>Solubility:</b>	Soluble
<b>Evaporation rate:</b>	Not determined
<b>pH:</b>	<1
<b>Flash point (°C):</b>	NA
<b>Flash point (°F):</b>	NA
<b>Decomposition temperature:</b>	Not determined
<b>Auto-ignition temperature:</b>	Not determined
<b>Density @ 15.5 ° C (g/cc) :</b>	1.3
<b>Bulk density @ 60 ° F (lb/gal):</b>	10.85
<b>Partition coefficient (n-octanol/water, log Pow):</b>	Not determined
<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:

Heat, flames and sparks.

### Materials to avoid:

Alkali metals, Strong bases, Potassium, sodium, ethylene oxide, Gives off hydrogen by reaction with metals.

### Hazardous decomposition products:

HCl, Cl<sub>2</sub>, iron oxides

### Polymerization:

Not applicable

## 11. TOXICOLOGICAL INFORMATION

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

...  
 Overexposure to chromic chloride may produce the following chronic effects: May cause liver and kidney damage. Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Effects may be delayed. Laboratory experiments have resulted in mutagenic effects.

Components	NTP:	IARC:	OSHA - Select Carcinogens	NIOSH - Selected LD50s and LC50s
Ferrous chloride	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.	450mg/kgOral LD50Rat 984mg/kgOral LD50Rat
Hydrochloric acid	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.	3124ppmInhalation LC50Rat 700mg/kgOral LD50Rat 5010mg/kgDermal LD50Rabbit
Chromic chloride, basic	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.	

## 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

***Ferrous chloride***

**Ecotoxicity - Fish Species Data** LC50 (Morone saxatilis - 96h) = 13.6 mg/L  
 LC50 (Morone saxatilis - 96h) = 8 mg/L

***Hydrochloric acid***

**Ecotoxicity - Fish Species Data** LC50 (Gambusia affinis - 96h) = 282 mg/L  
 LC50 (Lepomis macrochirus - 48h) = 3.6 mg/L

## 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.

**Components**

Chromic chloride, basic  
50925-66-1

**RCRA - Hazardous Constituents** Listed  
**-Appendix**

## 14. TRANSPORT INFORMATION

**U. S. DEPARTMENT OF TRANSPORTATION:**

<b>UN/NA ID Number:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s.(hydrochloric acid, ferrous chloride)
<b>Hazard Class</b>	8
<b>Packing group:</b>	II
<b>RQ:</b>	Not applicable for packages of 5 gallons or less
<b>Emergency Response Guide Number:</b>	154
<b>DOT Label(s):</b>	For shipments over 5 gallons contact Epmar for shipping description.

**TDG (CANADA):**

<b>UN nr:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s.(hydrochloric acid, ferrous chloride)
<b>TDG Hazard Classification:</b>	8
<b>Packing group:</b>	II

**IMDG/IMO:**

<b>UN nr:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s.(hydrochloric acid, ferrous chloride)
<b>Class:</b>	8
<b>Packing group:</b>	II
<b>EMS:</b>	F-A, S-B
<b>Limited quantity:</b>	1 L

**IATA/ICAO:**

<b>UN nr:</b>	UN3264
<b>Proper shipping name:</b>	Corrosive liquid, acidic, inorganic, n.o.s.(hydrochloric acid, ferrous chloride)
<b>Hazard Class:</b>	8
<b>Packing group:</b>	II
<b>Maximum quantity for cargo only:</b>	60 L
<b>Maximum quantity for passenger:</b>	5L
<b>Limited quantity:</b>	0.5 L

## 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:** Class E - Corrosive Material  
Class D1- Poisonous and Infectious Material: Immediate and serious toxic effects

**Product Classification Graphic(s):**



**Component Classification Data:**

***Ferrous chloride - 7758-94-3***

**WHMIS hazard class:** Listed  
E  
E

***Hydrochloric acid - 7647-01-0***

**WHMIS hazard class:** Listed  
A, D1A, E; E (including 0.02 N, 0.05 N, 0.2 N, 0.333 N, 0.5 N); D1B, E (including 10%, 28%, 2 N); D1A, E (including 31.45%, 32%)

**Canadian National Pollution Inventory Data:**

***Hydrochloric acid - 7647-01-0***

**Canada - NPRI** Listed

***Chromic chloride, basic - 50925-66-1***

**Canada - NPRI** Listed

**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

***Hydrochloric acid - 7647-01-0***

**CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs:** Listed

***Hydrochloric acid - 7647-01-0***

**CERCLA/SARA 313 Emission reporting** Listed

**RCRA Status** To be disposed of as hazardous waste characteristic:  
corrosive D002

*Hydrochloric acid - 7647-01-0*  
**CAA - 1990 Hazardous Air Pollutants:** Listed

*Chromic chloride, basic - 50925-66-1*  
**CAA - 1990 Hazardous Air Pollutants:** Listed

**STATE REGULATIONS (RTK):**

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

*Ferrous chloride - 7758-94-3*  
**MARTK:** Listed  
**NJRTK:** Listed  
**PARTK:** Listed

*Hydrochloric acid - 7647-01-0*  
**MARTK:** Listed  
**NJRTK:** Listed  
**PARTK:** Listed

*Chromic chloride, basic - 50925-66-1*  
**PARTK:** Listed

**Components** **Michigan critical materials register list:**  
Listed

*Chromic chloride, basic - 50925-66-1*

**INVENTORY STATUS:**

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

**Canada DSL Inventory List -** This product complies with DSL

**EC 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.

**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) 14

**HMIS classification:****Health:**  
3\***Flammability:**  
0**Reactivity:**  
1**Personal Protection:**  
H**NFPA rating:****Health:**  
3**Flammability:**  
0**Reactivity:**  
1**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. EPMAR Corporation ("EPMAR") 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 EPMAR.

**End of Safety Data Sheet**