

Material Safety Data Sheet

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1. COMPANY AND PRODUCT IDENTIFICATION

Product code: 37G-4
Product name: KEMIKO ACID STAIN GREEN LAWN 37G-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	Weight %	CAS No.	OSHA Ceiling Limits	OSHA TWA (final):	ACGIH Ceiling Limits	ACGIH Exposure Limits:
Cupric chloride	5 - 10%	7447-39-4		0.1mg/m ³ 1mg/m ³		0.2 mg/m ³ 1 mg/m ³
Hydrochloric acid	1 - 5%	7647-01-0	5ppm 7mg/m ³	None	2ppm	None
Chromic chloride, basic	1 - 5%	50925-66-1		None		None

3. HAZARDS IDENTIFICATION

Emergency Overview

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

Principle routes of exposure: Eyes, Skin, Inhalation

Signal word: DANGER

Eye contact: Severe eye irritation. Corrosive to the eyes and may cause severe damage including blindness.

Skin contact: Causes skin burns. May cause severe, irreversible damage to skin.

Inhalation: Do not breathe vapours or spray mist. May be fatal if inhaled. Causes inflammation and ulceration of the respiratory tract. Prolonged or repeated exposure to mists of copper salts may cause discoloration of the skin or hair, ulceration and perforation of the nasal septum, runny nose, metallic taste, and atrophic changes and irritation of the mucous membranes.

Ingestion: Toxic if swallowed. Extremely corrosive and destructive to tissue. 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 all contaminated clothing 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. Consult a physician.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. Rinse mouth. Immediately give large quantities of water to drink. 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: Aspiration may cause pulmonary oedema and pneumonitis. Monitor kidney function due to toxicity of copper salts.

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, CO₂, 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: Use only in area provided with appropriate exhaust ventilation.

Safe handling advice: Wear personal protective equipment. Keep away from combustible material. Keep container tightly closed. Avoid contact with skin and eyes. Do not breathe vapors or spray mist. 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. Keep away from open flames, hot surfaces and sources of ignition.

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:
Cupric chloride		0.2 mg/m ³ 1 mg/m ³		0.1mg/m ³ 1mg/m ³	1mg/m ³ TWA 1mg/m ³ TWA	None
Hydrochloric acid	2ppm	None	5ppm 7mg/m ³	None	5ppmCeiling 7mg/m ³ 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: In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hand protection: Neoprene gloves

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

Eye protection: Goggles. Face-shield

Hygiene measures: Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace.



9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state:	Liquid.
Color:	dark green
Odour:	Pungent
Boiling point/range (°F):	~212
Boiling point/boiling range (°C):	~100
Vapour pressure:	Not determined
Vapour density:	Not determined
Solubility:	Soluble
Evaporation rate:	Not determined
VOC Content Product:	Not determined
pH:	<1
Flash point (°C):	NA
Flash point (°F):	NA
Decomposition temperature:	Not determined
Auto-ignition temperature:	Not determined
Density @ 15.5 ° C (g/cc) :	1.26
Bulk density @ 60 ° F (lb/gal):	10.52
Partition coefficient (n-octanol/water, log Pow):	Not determined
Explosive properties:	
- upper limit:	No data available
- lower limit:	No data available

10. STABILITY AND REACTIVITY

Conditions to avoid:

None known

Materials to avoid:

Strong bases. Strong oxidising agents. Alkali metals. Organic materials. Potassium. sodium. hydrazine. nitromethane. aluminum. acetylene. sodium hypobromite. Gives off hydrogen by reaction with metals..

Hazardous decomposition products:

HCl, Cl₂, Highly toxic fumes

Stability:

Stable under recommended storage conditions.

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
Cupric 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.	233mg/kgOral LD50Mouse 584mg/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.	1108ppmInhalation LC50Mouse 3124ppmInhalation LC50Rat
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

Cupric chloride

Ecotoxicity - Fish Species Data = 13.8 µg/L LC50 rainbow trout 96 h
 = 23 µg/L LC50 fathead minnow 96 h
 = 236 µg/L LC50 bluegill 96 h

Hydrochloric acid

Ecotoxicity - Fish Species Data = 3.6 mg/L LC50 bluegill 48 h

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.

14. TRANSPORT INFORMATION

U. S. DEPARTMENT OF TRANSPORTATION:

Proper shipping name:	Hydrochloric acid, solution
D.O.T. Hazard Class(es)	8
UN/NA ID Number:	UN1789
Packing group:	II
RQ:	Not applicable for packages of 5 gallons or less
Emergency Response Guide Number:	157
DOT Label(s):	For shipments over 5 gallons contact Epmar for shipping description.

TDG (CANADA):

Proper shipping name:	Hydrochloric acid, solution
TDG Hazard Classification:	8
UN number:	UN1789
Packing group:	II

IMDG/IMO:

Proper shipping name:	Hydrochloric acid, solution
Class:	8
UN number:	UN1789
Packing group:	II
EMS:	F-A, S-B
Limited quantity:	1 L

IATA/ICAO:

Proper shipping name:	Hydrochloric acid, solution
Class:	8
UN number:	UN1789
Packing group:	II
Maximum quantity for cargo only:	60 L
Maximum quantity for passenger:	5L
Limited quantity:	0.5 L

15. REGULATORY INFORMATION

CLASSIFICATION AND LABELING

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

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:

Cupric chloride - 7447-39-4

WHMIS hazard class:

1 % (English Item 431, French Item 577)

1 % (English Item 433, French Item 578)

D1B, E

Uncontrolled product according to WHMIS classification criteria

Hydrochloric acid - 7647-01-0

WHMIS hazard class:

1 % (English Item 845, French Item 502)

A, D1A, E

Canadian National Pollution Inventory Data:

Cupric chloride - 7447-39-4

Canada - NPRI

Part 1, Group 1 Substance

Hydrochloric acid - 7647-01-0

Canada - NPRI

Part 1, Group 1 Substance

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

Cupric chloride - 7447-39-4

CERCLA/SARA 313 Emission reporting

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

STATE REGULATIONS (RTK):

California Proposition 65 Status: No components are listed

Cupric chloride - 7447-39-4
MARTK: Present
NJRTK: sn 0528
PARTK: Environmental hazard

Hydrochloric acid - 7647-01-0
MARTK: Extraordinarily hazardous
NJRTK: sn 1012; sn 2909 (gas only)
PARTK: Environmental hazard

Components **Michigan critical materials register list:**
= 100 lb Annual usage threshold

Cupric chloride - 7447-39-4

INVENTORY STATUS:

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

Canada DSL Inventory List - This product complies with DSL

EC No. 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: This data sheet contains changes from the previous version in section(s) 14

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

HMIS classification:

NFPA rating:

Health:
3*

Health:
3

Flammability:
0

Flammability:
0

Reactivity:

1

Reactivity:

1

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. 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