AUSTRALIAN CHEMICAL REAGENTS

SAFETY DATA SHEET

Date Prepared: May 2022
Version No: 6

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Fry's Reagent
Product Code:	2104
Other Names:	Nil
Uses:	Metal testing Reagent
Supplier:	Australian Chemical Reagents 38-50 Bedford Street Gillman SA 5013
Contacts:	Telephone: 61 08 84402000 Fax: 61 08 84402001 Emergency Phone: 61 08 84402000 Mon – Fri 8:30am – 5:00pm

2. HAZARDS INFORMATION

GHS Classification

Skin Corrosion/Irritation: Category 1B
Corrosive to metals: Category 1
Specific Target Organ Toxicity (Single Exposure): Category 3

Signal Word(s)

DANGER

Pictogram(s)

Hazard Statement(s)

H290 May be corrosive to metals:
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic organisms. May cause long term adverse effects In aquatic environment.

Precautionary Statement(s)

Preventative

P234 Keep only in original container
P260 Do not breathe dusts or mists.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair) Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON/CENTRE or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P390 Absorb spillage to prevent material-damage.

Storage P405 Store locked up.
P406 Store in corrosive resistant/... container with a resistant inner liner.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients :

Chemical Entity	CAS No	Proportion
Hydrochloric acid	[7647-01-0]	40%
Cupric chloride dihydrate	[10125-13-0]	5%
Ethanol	[64-17-5]	25%
Water	[7732-18-5]	to 100%

4. FIRST AID MEASURES

Safety showers and eye wash facilities should be provided.

Swallowed :
If conscious wash out mouth with water. Seek medical advice. Show this SDS to medical practitioner.

Eye :
Immediately hold eyelids open and flood with water for at least 15 minutes. Obtain medical aid. Show this SDS to medical practitioner.

Skin :
Remove contaminated clothing. Immediately wash skin thoroughly with water and mild soap. Seek medical advice if irritation persists. Show this SDS to medical practitioner. Launder clothing before reuse.

Inhaled :
Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical assistance. Show this SDS to a doctor.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Hazards From Combustion Products:
Solutions will not burn or support combustion. Contact with metals such as zinc and tin will generate explosive hydrogen gas. Decomposition products include hydrogen chloride and copper oxides.

Precautions For Fire Fighters and Special Protective Equipment:
Fire fighters and others who may be exposed to combustion products during fire should wear full protective clothing including positive pressure self-contained breathing apparatus (SCBA). Wear SCBA with full face-piece, operated in positive pressure mode when fighting fires.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:
Prevent from entering waterways. Restrict access to area. Ventilate area. Remove chemicals that can react with the spilled material.

Methods and materials for containment and clean up:

Wear suitable protective clothing when dealing with spills. Use inert material such as sand or earth to contain spill or leak. Neutralise with sodium bicarbonate. Absorb spills with chemical absorber or vermiculite and dispose of hazardous waste in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.
Conditions for Safe Storage:
Store sealed in original container in a cool well ventilated situation away from foods and other chemicals. Do not store in direct sunlight. Observe good hygiene and housekeeping practices.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:
SWA – Hydrogen chloride 7.5mg/m^3 TWA & Peak Limitation
Copper dusts & mists (as Cu) 1mg/m^3 TWA

Biological Limit Values: No data available.

Engineering Controls:
Preferably use in chemical hood. If mists are likely to be generated maintain atmospheric concentrations well below exposure standards with extraction ventilation.

Personal Protective Equipment (PPE):
The use of nitrile or neoprene gloves complying with AS 2161 and the use of faceshield, chemical goggles or safety glasses with side shield protection complying with AS/NZS 1337 is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Dark green liquid
Odour:	Acidic
pH:	1
Boiling Point (^{0}C) :	Not applicable
Freezing/melting Point:	Not applicable
Vapour Pressure (mm of Hg @ 25^{0}C) :	Not applicable
Vapour Density:	Not applicable
Specific Gravity :	1.2
Flash Point (^{0}C) :	Not flammable
Flammability Limits (%) :	Not flammable
Solubility in Water (g/L) :	Soluble

10. STABILITY AND REACTIVITY

Chemical stability:
Stable. May precipitate in cold conditions.
Conditions to avoid:
Acidic solution. Will corrode metals. Will produce toxic gases on contact with cyanides, sulphides, hypochlorites etc.
Incompatible materials:
Strong alkalies, powdered metals, hypochlorites,cyanides,sulphides.
Hazardous decomposition products:
Refer to section 5 (Fire Fighting Measures).
Hazardous reactions:
Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Effects:
Swallowed : Corrosive. May be harmful if swallowed. May cause gastrointestinal disturbances,

damage to liver and kidneys. For hydrochloric acid LD50 oral-rabbit 900mg/kg. For copper chlorideLD50 140 mg/kg
Eye : Corrosive to eye tissue. 100mg rinse of hydrochloric acid produced mild irritation of rabbit eyes.
Skin : Corrosive to skin.
Inhaled : Irritating to respiratory system. For hydrochloric acid LCLo inhalation-human 1300 ppm for 30 minutes .
Chronic Effects: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
No data available.
Persistence and degradability:
No data available.
Mobility:
No data available.

13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

UN Number: 3264
UN Proper Shipping Name: CORROSIVE LIQUID ACIDIC INORGANIC (contains hydrochloric acid 20%)
Class and subsidiary risk(s): 8
Packing Group: II
Hazchem Code: 2R
Special precautions for user : Nil

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP):
Schedule 6

16. OTHER INFORMATION

Disclaimer:
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