

May be used to comply with OSHA's Hazard Communication Standard 29CFR 1910. 1200. Standard must be consulted for specific requirements.

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

Trade Name: Cu+2 Copper Remover

Application of the substance / preparation: Cleaning Compound

Details of the supplier Information:

Supplier Name: Otis Products, Inc
Address: PO Box 852, 6987 Laura Street; Lyons Falls, NY 13368
Phone: 315-348-4300
Fax: 315-348-4332

Emergency Telephone No.: CHEM-TREC 1-800-424-9300

SECTION 2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No1272/2008



GHS07

Skin Irrit. 2 H315 Causes skin irritation
STOT SE 3 H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant
R36/37/38

The full text for all risk phrases is displayed in Section 16

Information concerning particular hazards for human environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for the preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Labeling according to EU guidelines:

Observe the general safety regulations when handling chemicals
The product has been classified and marked in accordance with EU directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product: Not applicable

Hazard-determining components of labeling: Not applicable

Risk phrases:

R36/37/38 Irritating to eyes/respiratory system/skin

Safety phrases:

1/2 Keep locked up and out of the reach of children
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
36/37/39 Wear suitable protective clothing, gloves and eye / face protection
45 in case of accident or if you feel unwell, seek medical advice immediately

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Dangerous Components			
CAS: 205-483-3	Monoethanolamine	C: 1B, H314; Xn; R20/21/22, H312, Acute Tox. 4, H332, H227	4-<25%
CAS: 57-55-6	Propylene glycol	Substance with a community workplace exposure limit; Acute Tox. 4, H302	3-10%

Additional information: For the wording of the listed risk phrases refer to section 16

SECTION 4 – FIRST AID MEASURES

GENERAL INFORMATION

- Keep the affected person warm and at rest. Get prompt medical attention.

INHALATION

Move the exposed person to fresh air at once
Perform artificial respiration if breathing has stopped.
Keep the affected person warm and at rest.
Get prompt medical attention.

INGESTION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!
Drink plenty of water.
DO NOT induce vomiting. Get medical attention immediately.

SKIN CONTACT

Generally the product does not irritate the skin.
Remove affected person from source of contamination.
Promptly flush contaminated skin with water.
Promptly remove clothing if soaked through, flush the skin with water.
Get medical attention if any discomfort continues.

EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids.
Continue to rinse for at least 15 minutes and get medical attention.
Get medical attention immediately.
Continue to rinse.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Headache
Coughing
Allergic reactions
Blurred vision

SECTION 5- FIRE FIGHTING DATA

EXTINGUISHING MEDIA

Fire can be extinguished using: Water spray, fog or mist. Alcohol resistant foam. Carbon dioxide(CO2). Dry chemicals, sand, dolomite etc.

SPECIAL FIRE FIGHTING PROCEDURES

Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities. Beware, risk of formation of toxic and corrosive gases.

UNUSUAL FIRE & EXPLOSION HAZARDS

Vapors are heavier than air and may spread near ground to sources of ignition.

SPECIFIC HAZARDS

Fire creates: Ammonia or amines. Oxides of: Nitrogen

SECTION 6 – ACCIDENTAL RELEASE MEASURE

PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS

Prevent entry in drains. Avoid discharge onto the ground. Avoid release to the environment.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. Ventilate well. Dilute with copious amount of water. Provide ventilation and confine spill. Do not allow runoff to sewer. Collect and reclaim or dispose in sealed containers in licensed waste. Avoid contact with skin or inhalation of spillage, dust or vapor. Clean-up personnel should use respiratory and/or liquid contact protection.

See section 13 for disposal information.



SMART GUN CARE

OTIS COPPER REMOVER

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

- Store in cool, dry place in tightly closed receptacles
- Keep receptacles tightly sealed
- Keep away from heat, sparks and open flame

REQUIERMENTS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Store away from oxidizing agents
- Store away from reducing agents
- Unsuitable containers/metals: copper, zinc aluminum, alloy zinc, aluminum

FURTHER INFORMATION ABOUT STORAGE CONDITIONS

- Protect from frost
- Keep from freezing
- Store under lock and key and out of the reach of children
- Keep container tightly sealed

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std	LT-ppm	LT-mg/m3	St - ppm	ST – mg/m3
Monoethanolamine	OES	3 ppm	7.6 mg/m3	6 ppm	15 mg/m3

INGREDIENT COMMENTS

OES = Occupational Exposure Standard.

PROTECTIVE EQUIPMENT

- Protective Gloves: Use impermeable gloves.
- Eye Protection: Wear safety/splash goggles.
- Respiratory Protection: Not normally required.
- If working in confined area or if excessive misting is expected an approved organic vapor mask should be worn.
- Work/Hygienic Practices: Wash thoroughly after handling.

PROCESS CONDITONS

- Use engineering controls to reduce air contamination to permissible exposure level.
- Provide eyewash station.

ENGINEERING MEASURES

- Provide adequate general and local exhaust ventilation

RESPIRATORY EQUIPMENT

- If ventilation is insufficient, suitable respiratory protection must be provided.
- Chemical respirator with organic vapor cartridge.

HAND PROTECTION

- Use suitable protective gloves if risk of skin contact. Use protective gloves made of: Rubber, neoprene or PVC.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

HYGIENE MEASURES

Do not smoke in work area.

Wash at the end of each work shift and before eating smoking and using the toilet.

Wash promptly if skin becomes wet or contaminated.

Promptly remove any clothing that becomes contaminated.

When using do not eat, drink or smoke.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid Clear
COLOUR	Colorless Yellow
pH	10.5
ODOR	Mild (or faint) pine
SOLUBILITY	Completely soluble in water Soluble in Benzene Chloroform
BOLING POINT(°C)	~ 105°C @ 760 mm Hg
MELTING POINT (°C)	~10
RELATIVE DENSITY	1.0
VAPOUR DENSITY	N/D
VAPOUR PRESSURE	N/D (air=1)
EVAPORATION RATE	N/D
FLASH POINT (°c)	> 110° C

SECTION 10 – STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

Avoid contact with acids and alkalies.

Avoid exposure to high temperatures.

SECTION 11 – TOXICOLOGICAL INFORMATION**TOXIC DOSE 1-ld 50:**

2100 mg/kg (oral rat)

INHALATION

Prolonged inhalation of high concentrations may damage respiratory system.

Vapors may irritate respiratory system or lungs

INGESTION

Swallowing concentrated chemical may cause severe internal injury.
May cause chemical burns in mouth and throat.
May cause chemical burn in mouth, esophagus and stomach.

SKIN CONTACT

Strongly irritating.
Prolonged contact may cause burns.

EYE CONTACT

Extreme irritation of eyes and mucous membranes, including burning.
Risk of damage to eyes.

HEALTH WARNINGS

Gas or vapors may be irritating even on brief exposure.
This chemical may cause skin/eye irritation and burns (corrosive).
Repeated exposure may cause chronic eye irritation.
Swallowing concentrated chemical may cause severe internal injury.

ROUTE OF ENTRY

Inhalation/ Ingestion/ Skin and/or Eye Contact

TARGET ORGANS

Eyes, Kidneys, Liver, Respiratory System, Lungs, Skin.

MEDICAL SYMPTOMS

Extreme irritation of eyes and mucous membranes, including burning.
Pharyngitis (inflammation of back of mouth).
General respiratory distress, unproductive cough.
Severe skin irritation.

MEDICAL CONSIDERATIONS

Skin disorders and allergies.
Splash in eye requires examination by eye specialist.

SECTION 12 – ECOLOGICAL INFORMATION

LC 50, 96 Hrs, FISH mg/l 150 Rainbow Trout

EC 50, 48 Hrs, DAPHNIA, mg/l 33

MOBILITY

Dissolves in water

BIOACCUMULATION

Does not bioaccumulate significantly

DEGRADABILITY

Readily biodegradable

SECTION 13 – DISPOSAL CONSIDERATIONS

GENERAL INFORMATION

Contaminated packages must be completely emptied before sending away for laundering and re-use.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.
Confirm disposal procedures with environmental engineer and local regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Shipping Information

This product is considered to be a non- hazardous material and not regulated by the D.O.T.

ADR, IMDG, IATA Shipping Information

This material is considered non-hazardous

ADR, IMDG, IATA Not applicable

UN PROPER SHIPPING NAME
ADR, IMDG, IATA Not applicable

Transport Hazard Class(es)
ADR, IMDG, IATA Not applicable

Class
Label Not applicable

Packing group
ADR, IMDG, IATA Not applicable

Environmental Hazards:
Marine pollutant No

Special precautions for users
Dander Code (Kemler): Not applicable

EMS Number
Segregation groups: Not applicable

Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
Transport/ Additional information Not applicable
ADR
Limited quantities (LQ)
Transport category

Tunnel restriction code	Not applicable
UN "Model Regulation":	Not applicable

SECTION 15 – REGULATORY INFORMATION

LABELING	non-hazardous mixture
CONTAINS	Monoethanolamine

SECTION 16 – OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
R20/21/22	Harmful by inhalation, in contact with the skin and if swallowed
R36/37/38	Irritating to eyes/respiratory system/skin
S45	In case of accident or if you feel unwell, seek medical advice immediately
S51	Use only in well-ventilated areas.
S24/25	Avoid contact with skin and eyes.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

UK REGULATORY REFERENCES

Health and Safety at Work Act 1974.
The Control of Substances Hazardous to Health Regulations 1988.
Chemicals (Hazard Information & Packaging) Regulations.

ENVIRONMENTAL LISTING

Environmental Protection Act 1990 Special Waste Regulations 1996

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC.
Dangerous Preparations Directive 1994/45/EEC.

APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations.
Classification and Labeling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES

Occupational Exposure Limits EH40.

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DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their own particular use.