



SAFETY DATA SHEET

COPPER REMOVER

Issue Date 1-12-2015

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Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name: COPPER REMOVER

Product Code: CRS08

Recommended Use of the Chemical and Restrictions on Use Recommended Use

SOLVENT CLEANER

Details of the Supplier of the Safety Data Sheet

Supplier Address

OTIS TECHNOLOGY
6987 Laura St.
Lyons Falls, NY 13368
Information Telephone Number: 1-800-674-7847

Emergency Telephone Number

Chemtrec: 800-424-9300
International Chemtrec: 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids: Category 3
Serious Eye Damage/irritation: Category 1
Acute Toxicity – Oral: Category 4
Acute Toxicity – Inhalation: Category 3
Skin corrosion/irritation: Category 1
Aspiration toxicity: Category 1

Signal Word

DANGER

Symbols



Emergency Overview:

Physical State: Liquid
Color: colorless, clear
Odor: Ammonia Scent

OSHA/HCS status:This material is considered hazardous by the OSHA Hazard Communication Standard(29 CFR 1910.1200).

Hazard Statements

H226: FLAMMABLE LIQUID AND VAPOR.

H331: TOXIC IF INHALED.

H302: HARMFUL IF SWALLOWED.

H314: CAUSES SEVERE SKIN BURNS AND SERIOUS EYE DAMAGE.

H305: MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.

Precautionary Statements-Prevention

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed.

P240: Ground and bond container and receiving equipment.

P241: Use explosion-proof equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing vapors.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P264: Wash face, hands and any exposed skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary Statements – Response

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).

P363: Wash contaminated clothing before reuse.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310: Immediately call a poison center or doctor.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a poison center or doctor.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331: Do NOT induce vomiting.

P330: Rinse mouth.

P370 + P378: In case of fire: Use dry chemical, CO₂, or Halon to extinguish.

Precautionary Statements – Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P235: Keep cool.

P405: Store locked up.

Precautionary Statements – Disposal

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	15-20
HYDROCARBON SOLVENT	64742-47-8	45-50
AMMONIUM HYDROXIDE	1336-21-6	20-25

The balance of the chemicals in this mixture are either considered nonhazardous or are below the listing limits for hazardous substances. These chemicals are considered trade secrets. The specific identity of these chemicals is available to health professionals.

4. FIRST AID MEASURES

First Aid Measures

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Check for and remove any contact lenses. Immediately flush eyes thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Get medical attention immediately.
Skin Contact	IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Seek medical attention if irritation occurs.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or physician.
Ingestion	IF SWALLOWED: Clean mouth with water. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms	Direct contact with eyes causes serious irritation. Substance causes skin irritation. Harmful if inhaled. May cause irritation to the mucous membranes and upper respiratory tract. Choking, coughing and headache may occur. May cause irritation to the digestive tract.
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Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry Chemical, CO₂, Halon.

Unsuitable Extinguishing Media Do not use water.

Specific Hazards Arising from the Chemical

Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst. Runoff to sewer may create fire or explosion hazard.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment as required. Isolate area. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Methods and Material for Containment and Cleaning Up

Methods for Containment For small spills, absorb on poly-pads or other suitable non-reactive absorbent material. Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Eliminate all sources of ignition. Use non-sparking hand tools and explosion-proof electrical equipment. Sweep up and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Keep away from heat, sparks, flame and other sources of ignition. All equipment used when handling the product must be grounded.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Incompatible Materials Sparks or open flame. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	ACHIH TLV	OSHA PEL	NIOSH IDLH
Ethylene Glycol Monobutyl Ether 111-76-2	20 ppm TWA	50 ppm, 24 mg/m ³ TWA OSHA Z-1 240 mg/m ³ TWA OSHA P0	5 ppm, 24 mg.m ³ TWA
Hydrocarbon Solvent 64742-47-8	525 mg/m ³	1900 mg/m ³	No data available
Ammonia as NH ₃ 7664-41-7	25 ppm, 17 mg/m ³ TWA 35 ppm, 24 mg/m ³ STEL	50 ppm, 35 mg/m ³ TWA	25 ppm, 18 mg/m ³ TWA 35 ppm, 27 mg/m ³ STEL

Exposure Guidelines: Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or other biological monitoring may be require to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Appropriate Engineering Controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and the using the bathroom and at the end of the working periods.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection	Avoid contact with eyes. Wear safety eyewear.
Skin and Body Protection	Wear suitable protective clothing. Use impervious gloves.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid	Odor	Ammonia scent
Appearance	Clear Liquid	Odor Threshold	Not determined
Color	Colorless, Clear		

Property

Values

pH	11.5
Melting Point/Freezing Point	Not determined
Boiling Point/Boiling Range	68 Deg F
Flash Point	110 Deg F (tcp)
Evaporation Rate	(H ₂ O = 1) >1
Flammability (Solid, Gas)	n/a-liquid
Upper Flammability Limits	UEL = 11
Lower Flammability Limit	LEL = 1
Vapor Pressure	20@68f
Vapor Density	Not determined
Specific Gravity	.845
Water Solubility	Soluble in water
Solubility in Other Solvents	Not determined
Partition Coefficient Autoignition	Not determined
Temperature Decomposition	Not determined
Temperature Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties Oxidizing Properties	Not determined Heated drums can explode Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children. Avoid all possible sources of ignition (spark or flame).

Incompatible Materials

Sparks or open flame. Strong oxidizers

Hazardous Decomposition Products

Carbon Monoxide and Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact Causes severe eye damage. **Skin Contact** Causes severe skin irritation.

Inhalation Harmful if inhaled. **Ingestion** Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol Monobutyl Ether 111-76-2	1,519 mg/kg (mouse)	>2,000 mg/kg	700, ppm 7 h
Hydrocarbon Solvent 64742-47-8	Data not available	Data not available	Data not available
Ammonium Hydroxide 1336-21-6	350 mg/kg (rat)	Data not available	2000 ppm/4H

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Material expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethylene Glycol Monobutyl Ether 111-76-2	EC50 (Pseudokirchneriella subcapitata (green algae)): 911 mg/l. Endpoint: Biomass Exposure time: 72h	LC50 (Oncorhynchus mykiss (rainbow trout): 1,474 mg/l. Exposure time: 96h	Data not available	EC50 (Daphnia magna (Water flea)): 1,800 mg/l Exposure time: 48h Test type: static test
Hydrocarbon Solvent 64742-94-5	Data not available	Data not available	Data not available	Data not available
Ammonium Hydroxide 1336-21-6	Data not available	LC50: Rainbow trout: .008 mb/l. 24h. fathead minnow: 8.2 mg/l. 96h.	Data not available	EC50: Water flea: .66 mg/l 48h

Persistence and Degradability

Not determined

Bioaccumulation

Not expected to bioaccumulate significantly.

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT UN2924, FLAMMABLE LIQUID, CORROSIVE, N.O.S.(naphtha, ammonium hydroxide) Class 3, (Class 8) PG III

IATA Not available

IMDG Not available.

TDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Not Determined.

US Federal Regulations

SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No	Weight-%
AMMONIUM HYDROXIDE	1336-21-6	20-25
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	19.08

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethylene Glycol Monobutyl Ether	90-100%	90-100%	90-100%
Hydrocarbon Solvent	X		X
Ammonium Hydroxide			X

16. OTHER INFORMATION

<u>NEPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards 2	Flammability 2	Physical Hazards 0	Personal Protection B

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet