Safety Data Sheet

Trade Name: US-97CA

SECTION 1. IDENTIFICATION

Date of issue: **04/19/2020**
Product identifier used on the label:
Product Name: **US-97CA**
Product Code Number: **Copper Oxide**

Other means of identification: Technical Grade Cuprous Oxide

Recommended use of the chemical and restrictions on use:
Recommended use: **Industrial production of polyurethane foam articles**
Recommended restrictions: **Uses other than as recommended above**

Company Name: Urethane Sciences, LLC
Company Address: 121 Cross Keys Road, Building E
Berlin, NJ 08009
Company Telephone: Phone: (856) 282-4506
Company Contact Email: info@usci.net

Emergency Phone: ChemTrec (24 Hours): 1-800-424-9300
(Outside of USA 202-366-4488)

SECTION 2: HAZARD(S) IDENTIFICATION

Physical hazards
Acute toxicity may be harmful in contact with skin, Category 5.

Health hazards
Acute toxicity, Oral, Category 4.
Acute toxicity, Inhale, Category 4.
Causes serious eye irritation. Category 2A

Environmental hazards
Aquatic Acute, very toxic to aquatic life with long lasting effects, Category 1.

GHS Signal word: **WARNING**

GHS Hazard statement(s): Harmful if swallowed
Harmful if inhaled

Harmful if contact with skin
Cause serious eye irritation

GHS Hazard symbol(s):

Precautionary statement(s):

Prevention:
Avoid contact with eyes
Do not eat, drink, or smoke when using this product
Avoid breathing dust
Do not swallow
Wash thoroughly after handling
Use only outdoors or in well-ventilated areas
Avoid release to the environment
Wear protective gloves/protective clothing/face shield/eye protection

Response:
If swallowed: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
If on skin: Wash thoroughly.
If inhaled: Move person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If effects occur, get medical advice/attention.

Disposal:
Collect spillage.
Dispose of contents/containers to an approved disposal site in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise Classified (HNOC): None known

SECTION 3: Composition/Information on ingredients

CHEMICAL NAME	CAS #	Concentration (weight %)
Cuprous Oxide	1317-39-1	95%
Cupric Oxide	1317-38-0	3%

SECTION 4: FIRST AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Inhalation: Remove to fresh air. Lay patient down. Cover with blanket.

Skin contact: For skin exposure, remove contaminated clothing and wash with soap and water.

Eye contact: If irritated, flush eyes and skin with large volumes of fresh water for 15 minutes.

Ingestion: Give 200-300 mL water to drink. DO NOT induce vomiting.

Most important symptoms/effects, acute and delayed: Harmful if Swallowed. Dust may have irritant effect on skin, eyes, and air passages.

Indication of immediate medical attention and special treatment needed: Treat symptomatically as described above in this section. If any adverse symptoms persist seek immediate attention.

SECTION 5: FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: CO2, ABC extinguisher, or water spray

Unsuitable extinguishing media: Collect contaminated fire fighting water separately. It must not enter the sewer system.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products): Cuprous oxide is stable in dry air, but can oxidize to cupric oxide in the presence of moist air at temperatures above 100 °C

Special protective equipment and precautions for fire-fighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire- fighting helmet, coat, trousers, boots, and gloves).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Spilled material may produce dust hazard if not handled correctly. Wear appropriate personal protective equipment: coveralls, gloves, and eye protection.

Environmental Precautions: Do not allow to enter drains or watercourses. If the product enters drains or sewers, immediately inform the local water company. Where there is contamination of streams, rivers, or lakes, contact local agency with the responsibility for the environment.

Methods and materials for containment and cleaning up: Contain spillages and clean up with vacuum or conventional tools and attempt to minimize dusting. Place in a suitable container for recycling or disposal in accordance with the local and national waste regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Only use in a well-ventilated area and prevent the creation of dusts. If concentrations exceed the occupational exposure limits, use suitable respiratory protection.

Conditions for safe storage, including any incompatibles: Store in a cool, dry, well ventilated place. Keep away from food and drink.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Copper as dust & mist:
OSHA PEL & ACGIH TLV
1 mg/m³ 8-hour TWA

Exposure controls
Engineering controls: All personal protective equipment, including respiratory equipment, used to control exposure to hazardous substances must be selected to meet the requirements of national personal protective equipment regulations.

Individual protection measures
Eye/face protection: Use safety glasses or googles.

Skin protection: Long sleeve shirt(s) if contact is probable.

Hand protection: Wear if skin contact is probable.

Other protection: Do not allow to enter drains or watercourses.

Respiratory protection: Cartridge type particulate filter respirator or dust-mask conforming to U.S.A. NIOSH refer to Respiratory Protective Devices approved by NIOSH under 42 CFR 84 and the appropriate country standard.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Form:	Powder
Color:	Red, Brown or Purple
Odor:	Odorless
Odor threshold (ppm):	Not available
pH:	Not available, (inorganic solid)
Melting point (°C)/freezing point:	1235°C
Initial boiling point and boing range:	Not Applicable (solid that melts >300 ˚C)
Flash point:	Not available, (inorganic solid)
Evaporation rate:	Not available, (inorganic solid)
Flammability (solid, gas):	Non-flammable
Upper/lower flammability or explosive limits	
Flammability limit – lower %):	Not applicable
Flammability limit – upper (%):	Not applicable
Explosive limit – lower (%):	Not applicable
Explosive limit – upper (%):	Not applicable
Vapor pressure (Pascal):	Not applicable, (inorganic solid melting point 1235 °C)
Vapor density (air=1):	Not applicable (inorganic solid)
Relative density:	5.87 g/cm³ at 20 °C
Solubility (water):	28.6 g/l at 20 °C {pH 4}
	0.000639 g/l at 20 °C (pH 6.5-6.6)
	0.000539 g/l at 20 °C (pH 9.7-9.8)
Specific Gravity (Water = 1):	6.0
Partition coefficient (n-octanol/water):	Not applicable (inorganic solid)
Auto-ignition temperature:	None
Decomposition temperature:	>300 °C at 101.72 kPa
Viscosity (MPa.s):	Not applicable (inorganic solid)
Explosive properties:	Not explosive
Oxidizing properties:	Not oxidizing
Percentage Volatile by volume (%):	0%

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Thermally stable.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Keep at a temperature not exceeding (°C): 100 (in moist conditions) Avoid dust generation.
Incompatible materials:	May react violently with: Acids, Bases.
Hazardous decomposition products:	Copper fumes will be released if heated above its melting point (1235 °C)

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity
Acute oral toxicity
Classified as Harmful if swallowed.

Typical for this family of materials.
LD50, Rat, 1340 mg/kg bw (male and female)

Acute dermal toxicity
Classified as Maybe harmful in contact with skin.

Typical for this family of materials.
LD50, Rat, > 2,000 mg/kg bw (male and female).

Acute inhalation toxicity
Classified as Harmful if inhaled.

Typical for this family of materials.
LD50, Rat, (4 hour(s)) > 1.27 mg/L < 5 mg/L (male and female).

Skin corrosion/irritation
Prolonged exposure not likely to cause significant skin irritation.
May cause more severe response if skin is abraded (scratched or cut).
Material may be handled at elevated temperatures; contact with heated material may cause thermal burns.

Serious eye damage/eye irritation
Classified as Causes serious eye irritation.
Corneal involvement or irritation clearing in 8 to 12 days (Rabbits).

Sensitization
Based upon the available data, the classification criteria are not met.

Specific Target Organ Systemic Toxicity (Single Exposure)
Based upon the available data, the classification criteria are not met.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
Based upon the available data, the classification criteria are not met.

Carcinogenicity
Based upon the available data, the classification criteria are not met.

Teratogenicity
Based upon the available data, the classification criteria are not met.

Reproductive toxicity
Based upon the available data, the classification criteria are not met.

Mutagenicity
Based upon the available data, the classification criteria are not met.

Aspiration Hazard
Based upon the available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Acute toxicity to fish

Toxic to fish and other aquatic organisms.
Prevent from entering drains, sewers, and surface water.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods:

Packaging: Dispose of in accordance with procedures applying to the disposal of the product.

Product: Dispose of surplus and contaminated materials (including sawdust) at an approved landfill or in accordance with other national or regional provisions.

SECTION 14: Transport Information

US Department of Transportation Classification (49CFR)
Not regulated. Class 9 materials do not require placarding for U.S.A ground transport (49 CFR 172.504(f)(9)). Exceptions, except when all or part of the transportation is by vessel, the requirement specific to marine pollutants do not apply to non-bulk packaging's transported by motor vehicle, rail car, or aircraft (49 CFR 171.4(C)).

Maritime transport IMDG

IMDG Class:	9
UN Number:	3077
Hazard Label:	9
Packaging group:	III
Marine pollutant:	Yes
Proper Shipping name:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Oxide)
EmS Code:	F-A, S-F

Transport in bulk (ADR/RID (cross-border)

ADR/RID Class:	9 (M7) Miscellaneous dangerous substances and articles
Danger Code (Kemler):	90
UN Number:	3077
Hazard Label:	9
Packaging group:	III
Proper Shipping name:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Oxide)
Tunnel Restriction Code:	E

Air transport ICAO-TI and IATA-DGR

ICAO/IATA Class:	9
UN/ID Number:	3077
Hazard Label:	9
Packaging group:	III
Proper Shipping name:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper (I) Oxide)

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.
No data available

SECTION 15: REGULATORY INFORMATION

USA:
United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200.
EPA EPCRA Section 313 Reportable Product – (contains copper)
EPA Reportable Quantity: 5,000 lbs. (2,270 kg)

Toxic Substances Control Act (TSCA) – All components are on the U.S. EPA TSCA Inventory List.
EPA Registration No: 26883-7 or 26883-10
The following is the hazard information as required on the pesticide label: *WARNING Causes substantial but temporary eye injury. Harmful if swallowed, inhaled, or absorbed through skin.*
This pesticide is toxic to fish and aquatic invertebrates.

CERCLA Hazardous Substance List, 40 CFR 302.4:
Copper

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories:
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard – No

Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

Section 311 hazardous chemical: Acute Health Hazard

SARA Section 313 (Specific toxic chemical listings):
Cuprous oxide 1317-39-1
Cupric oxide 1317-38-0

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements, you should contact the appropriate agency in your state.

California Proposition 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986): No components are listed on Prop 65.

SECTION 16: OTHER INFORMATION

Date of last Issue: 6/16/2020

DISCLAIMER: To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier nor any of its subsidiaries assumes any legal liability for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.