



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG
(SEE ADDENDUM)

REVISION: 00
DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**
(FORMERLY MSDS0062)

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: LUG

GENERAL USE: CONDUCTOR TERMINATION

PRODUCT DESCRIPTION: COPPER LUG

GENERIC INGREDIENTS: COPPER W/TIN

24HR EMERGENCY TELEPHONE NUMBERS: CHEMTREC: (703) 527-3887 / 800-424-9300

FOR PRODUCT INFORMATION: Celestra: +86.20.3471.7744

SECTION 2 HAZARDOUS INGREDIENT SECTION

OSHA HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS NO. | % BY WT | OSHA PEL | ACGIH TLV | OTHER LIMITS OF EXPOSURE |
|----------------------|-----------|-------------|---------------------|---------------------|---------------------------|
| COPPER | 7440-50-8 | 96.44~98.61 | 1 mg/M ³ | 1 mg/M ³ | STEL: 2 mg/M ³ |

SECTION 3 HEALTH INFORMATION & PROTECTION

| | | | | | | |
|---------------------------|--------------------|----|-------------------------|----|------------------------|----|
| CARCINOGENICITY: | NTP? | NO | IARC MONOGRAPHS? | NO | OSHA REGULATED? | NO |
| ROUTE(S) OF ENTRY: | INHALATION? | NO | SKIN? | NO | INGESTION? | NO |

HEALTH HAZARDS(ACUTE AND CHRONIC):

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: NOT REGULATED.

SKIN CONTACT: NOT REGULATED.

INGESTION: NOT REGULATED.

INHALATION: NOT REGULATED.

FIRST AID MEASURES:

EYE CONTACT: NOT REGULATED.

SKIN CONTACT: NOT REGULATED.

INGESTION: NOT REGULATED.



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INHALATION: NOT REGULATED.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

WORKPLACE EXPOSURE CONTROLS:

PERSONAL PROTECTION:

RESPIRATORY PROTECTION: NONE NEEDED.

VENTILATION:

HAND PROTECTION: PROTECTIVE GLOVES FOR HYPERSENSITIVE PERSONS.

EYE PROTECTIVE: GLASSES, IF APPLIED TO MOVING PARTS IN MOTION.

BODY PROTECTION: OVERALLS.

WORK/HYGIENIC:

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: NOT REGULATED.

EXPLOSIVE PROPERTIES: NOT REGULATED.

FLAMMABLE LIMITS: NOT FLAMMABLE AT AMBIENT TEMPERATURE

GENERAL HAZARD:

FIRE FIGHTING: FOAM, DRY POWDER, CARBON, DIOXIDE, SAND, EARTH AND WATER MIST.

SECTION 5 SPILL CONTROL MEASURES

SPILL RESPONSE: NOT REGULATED.

PRODUCT DISPOSAL: DO NOT INCINERATE. CONTACT WASTE DISPOSAL AUTHORITY FOR ADVICE.

CONTAINER DISPOSAL: PAILS WITHOUT LINER SEE "PRODUCT DISPOSAL". PAILS WITH PLASTIC LINER PAIL CAN ONLY BE DISPOSED OF VIA STANDARD WASTE DISPOSAL SERVICES, RECYCLED OR REUSED. LINER - SEE "PRODUCT DISPOSAL".

SECTION 6 HANDLING & STORAGE



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GENERAL: NO SPECIAL HANDLING PRECAUTIONS NECESSARY.

STORAGE: DO NOT STORE ATELEVATED TEMPERATURES.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: GRAINY SEMISOLID PASTE

COLOR: COPPER

DENSITY(g/cm³): 1.66

ODOR: SHARP

pH: NEUTRAL

PARTITION COEFFICENT (LOG POW): N/A

SOLUBILITY IN WATER: Nil

VAPOR PRESSURE, (kPa): <0.01

AUTOIGNITION

TEMPERATURE °F(°C): >680(360)

BOILING POINT °F(°C): >700(371)

EVAPORATION RATE,

BUTYL ACETATE=1: <0.01

MELTING POINT: N/A

PERCENT VOLATILE: NIL

SPECIFIC GRAVITY (H2O=1):

VAPOR DENSITY (AIR=1): >5

SECTION 8 REACTIVITY DATA

GENERAL:

CHEMICAL STABILITY: CHEMICAL STABLE UNDER NORMAL CONDITIONS. NO PHOTOREACTIVE AGENTS.

INCOMPATIBLE MATERIALS AND CONDITONS TO AVOID: POWERFUL SOURCES OF IGNITION. STRONG INORGANIC AND ORGANIC ACIDS AND OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: BURNING GENERATES SMOKE, AIRBORNE SOOT, HYDROCARBONS AND OXIDES OF CARBON. RESIDUE MAINLY COMPRISED OF SOOT AND METAL OXIDES AND MINERAL CARBIDES.

HAZARDOUS POLYMERIZATION:

SECTION 9 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION(DOT): NON-HAZARDOUS



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HAZARD CLASS:

UN#:

PG:

ERG:

HAZ LABEL:

I.A.T.A. CLASSIFICATION: NOT REGULATED

HAZARD CLASS:

UN#:

PG:

ERG:

HAZ LABEL:

U.S. FEDERAL REGULATIONS

TSCA: ALL COMPONENTS ARE LISTED.

CERCLA: NON-HAZARDOUS

RCRA HAZARD CLASS: NON-HAZARDOUS

SARA TITLE III INFORMATION

SECTION 302: NONE

SECTION 311/312: NONE

SECTION 313: THIS PRODUCT CONTAINS COPPER

NEW JERSEY RIGHT-TO-KNOW INFORMATION: N/A

CALIFORNIA PROPOSITION 65 INFORMATION: NONE.

INTERNATIONAL:

WHMIS(CANADA): NOT REGULATED

SECTION 10 NOTES

TOXICOLOGICAL INFO: LC-50: 1.98G/LT (MYSIDOPSIS BAHU), BASED ON ASSESSMENT FROM RELATED PRODUCTS.

HAZARD RATING SYSTEMS:

HIMS

NFPA

KEY



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| | | | |
|--------------|---|---|------------|
| HEALTH | 1 | 1 | 4=SEVERE |
| FLAMMABILITY | 1 | 1 | 3=SERIOUS |
| FLAMMABILITY | 1 | 1 | 2=MODERATE |
| | | | 1=SLIGHT |
| | | | 0=MININAL |

REVISION SUMMARY:

SUPERSEDES ISSUE DATE

ABBREVIATION: N/E=NOT ESTABLISHED
N/A=NOT AVAILABLE

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ADDENDUM

| Catalog Number | Description |
|----------------|--|
| DA4178-260 | Copper Two-Hole Lug-90°, Standard Barrel |