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No. 1 Online Medical Supplier in Australia
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Issue Date: 30/10/2024
Last Revision Date: N/A
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SAFETY DATA SHEET

Product Code: CRUTONG08C

SECTION 1 PRODUCT IDENTIFICATION

PRODUCT NAME	Livingstone Mild Steel Crucible Tong
MATERIAL	Chrome-plated bar and tubing (Chromerod and Chromerod Extreme)
CHEMICAL FAMILY	Metals
FORM	Chrome-plated and induction-hardened steel bars, rods, & tubes

SECTION 2 HAZARD IDENTIFICATION

General: Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards. The above operations should be preformed ir well-ventilated areas.

Occupational Exposure Limits: Refer to Section 1.

Major Exposure Hazard: Inhalation

Overexposure Effects:

1. Acute: Excessive inhalation of metallic fumes and dusts may result in irritation of eyes , nose, and throat. High concentrations of oxide fumes and may result in metal fume fever. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chill and fever and usually last from 12 to 48 hours.

2. Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to.

- Iron (iron oxide)- Pulmonary effects, siderosis
- Manganese - bronchitis, pneumonitis, effect on central nervous system
- Chromium - Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be evidence that exposure to welding fume induce human cancer.
- Nickel - Same as chromium
- Copper - Pulmonary effects
- Molybdenum - Pain in joints hands knees and feet.
- Aluminum - May initiate fibrotic changes to lung tissue
- Phosphorous - Necrosis of the mandible
- Sulfur - Edema of the lungs
- Tin - Cumulative systemic toxicity, central nervous system effects

CARCINOGENICITY NOTE: The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP), and OSHA do not list steel products as carcinogens. IARC identifies welding fumes as a Group 28 Carcinogen, a mixture that is possibly carcinogenic to humans.

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SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	CAS NUMBER	CARBON STEEL (% Wt.}	LOW ALLOY STEEL (% Wt.}	APPLICABLE EXPOSURE LIMITS	
Base Metal				**OSHA PEL[2] (mg/m3)**	**ACGIH TLV[3] (mg/m3)**
Iron (Fe)	7439-89-6	Balance	Balance	10 as Fe_2O_3 Fume	5.0 as Fe_2O_3 Fume
Elements					
Aluminum (Al)*	7429-90-5	0.1 MAX	0.1 MAX	5 as Respirable	5.0 as Welding Fume
Carbon (C)	7440-44-0	0.45 MAX	0.45 MAX	None Listed	None Listed
Chromium (Cr)*	7440-47-3	0.22-1.64	0.52-3.04	1.0 as Chrome	0.5 as Chrome
Copper (Cu)*	7440-50-8	0.35 MAX	0.6 MAX	0.2 as Copper	1.0 as Dust
Manganese (Mn)*	7439-96-5	0.2 -1.7	0.2 -1.7	5 as Manganese (C)	5 as Du st; 1 as Fume 3 (C)
Molybdenum (Mo)	7439-98-7	0.1 MAX	0.65 MAX	15 as Insoluble Compd.	10 as Insoluble Compd.
Nickel (Ni)*	7440-02-0	0.25 MAX	0.7 MAX	1.0 as Nickel	1.0 as Nickel
Phosphorous (P)*	7723-14-0	0.035 MAX	0.04 MAX	0.1 as Phosphorous	0.1 as Phosphorous
Silicon (Si)	7440-21-3	1.0 MAX	1.0 MAX	5 as Respirable	10 as Total Dust
Sulfur (S)	7446-09-5	0.05 MAX	0.5 MAX	5.0 as Sulfur Dioxide	5. as Sulfur Dioxide
Tin (Sn)	7440-31-5	0.03 MAX	0.03 MAX	2.0 as Tin	2.0 as Tin
Vanadium (V)	1-314-62-1	0.15 MAX	0.15 MAX	0.5 as Dust; 0.1 Fume (C)	0.05 as Dust and Fume

NOTES:

(1) The above listing is a summary of elements commonly found in applicable steel grades. Various grac es of steel may contain different combinations of these elements. Other trace elements, in minute quantities, may also be pr sent. Chrome plating chemistry considered in the above component percentages, although the product is not homogenous MAX chrome concentration calculated using maximum surface area to volume ratio of nomial product size ranges. I Values shown within carbon steel and low alloy steel columns differ due to chemistries of substrate (base) steel.

(2) OSHA Pemiissible Exposure Limits (PELs) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted.

(3) Threshold Limit Values (TLVs) established by the American Conference of Governmental Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded during any time during workday.

(4) *- SARA Title Ill Section 313 Chemical (See Section 15)

(5) Optional -Light surface coating of rust preventative or polish may be used. SDS available upon request. Use gloves when handling to prevent skin irritation. Use adequate ventilation and / or appropriate personal protection when fumes or dust are generated.

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SECTION 4 FIRST AID MEASURES

INHALATION Remove to fresh air, if condition continues, consult physician.

EYE CONTACT Immediately flush well with running water to remove particulate; seek medical attention.

SKIN CONTACT If irritation develops, remove clothing and wash well with soap and water. If condition persists, seek medical attention.

INHALATION If significant amounts of metal are ingested, seek medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION

Flash Point (°F)	Auto Ignition Temperature (°F)	Flammable Limits In Air (%)	Extinguishing Media
NA	NA	Lower: NA Upper: NA	NA
Fire and ExDloslon Hazards		**Extinguishing Media Not to be Used**	
NONE		NA	

Note: Steel products in the solid state do not present a fire or explosion hazard. However, p, rticulate generated durinq processinq may present a dust explosion hazard.

SECTION 6 ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES

Special Precautions: Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum. No CERCLA RQ specified for the product as a whole

SECTION 7 HANDLING AND STORAGE

STORAGE TEMPERATURES

Stable under standard temperatures & pressures.

HANDUNG/STORAGE PRECAUTIONS:

Store away from strong oxidizers. Dusts or powders may form explosive mixtures with air. Avoid breathing dusts or fumes.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION

NIOSH Approved dust/mist/fume respirator should be used during welding or burning if OSHA PEL or TL V is exceeded.

EYES AND FACE

Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.

PROTECTIVE CLOTHING

Use appropriate protective clothing such as welder's aprons & gloves when welding or turning. Depending on use, check local, state, and federal codes.

VENTILATION

As per welding requirements. Depending on use, check local, state, and federal codes.

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SECTION 9 PHYSICAL/CHEMICAL PROPERTIES

PHYSICAL STATE
Solid (at standard conditions)

APPEARANCE AND ODOR
Bright Silver & Odorless

OTHER PHYSICAL DATA

Boiling Point:	NA	**Specific Gravity:**	7.5 to 8	**pH:**	NA
Vapor Pressure:	NA	**% Volatile by Vol.:**	NA	**Melting Point:**	2400 -2800 °F
Solubility in H_2O:	Insoluble	**Evaporation Rate:**	NA		

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY

Stability

☒ Stable ☐ Unstable

Incompatibility (Materials to Avoid)

Reacts with strong acids to form hydrogen gas

Conditions to Avoid

Non- ventilated areas when cutting, welding, burning, or brazing; avoid generation of airborne dusts and fumes.

Hazardous Decomposition Products

Metallic oxides

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA	**LD_{50} (mg/kg) - oral**
Iron (Fe)	No Data
Aluminum (Al)*	No Data
Carbon (C)	No Data
Chromium (Cr)*	No Data
Copper (Cu)*	No Data
Manganese (Mn)*	9,000 (rat)
Molybdenum (Mo)	No Data
Nickel (Ni)*	No Data
Phosphorous (P)*	No Data
Silicon (Si)	No Data
Sulfur (S)	No Data
Tin (Sn)	No Data
Vanadium (V)	10 (rat)

NOTE: No LD_{50} has been established for the mixture as a whole. Source for Acute Toxicity Data Shown Above: NIOSH Chemical Listing and Documentation of Revised IDLH Values.

SECTION 12 ECOLOGICAL INFORMATION

ECO TOXICITY

No data available for the product as a whole. However, individual components of the product have been found to be toxic to the environment. Metal dusts have the potential migrate into soil and groundwater mediums if not managed properly.

ENVIRONMENTAL FATE

No data available on the product as a whole.

ENVIRONMENTAL DEGRADATION

No data available on the product as a whole.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT METHODS

Product should be recycled whenever possible, in accordance with federal, state, and local regulations. Steel scrap, when recycled, is not regulated as a hazardous or solid waste under RCRA (40 CFR 261). If product dusts and/or fumes from processing operations are not recycled, they are considered to be a solid waste and may be classified as a hazardous waste depending on the toxicity characteristics of the dust as defined within 40 CFR 261.24.

SECTION 14 TRANSPORT INFORMATION

USDOT INFORMATION

This product is not listed as a USDOT Hazardous Material as defined within 49 CFR 172.101. However, ensure that material loads are prepared and secured in accordance with all applicable USDOT Regulations.

SECTION 15 REGULATORY INFORMATION

OSHA REGULATIONS

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A: The product as a whole is not listed. However, individual components of the product are listed.

ENVIRONMENTAL REGULATIONS

- RCRA (40 CFR 261): Steel scrap, when recycled, is not regulated as a hazardous a solid waste under RCRA. If product dusts and/or fumes from processing operations are not recycled, t iey are considered to be a solid waste and may be classified as a hazardous waste depending on the toxi · ty characteristics of the dust as defined within 40 CFR 261.24.
- CERCLA (40 CFR 302.4): No CERCLA RQ specified for the product as a whole.
- SARA 313 (40 CFR 372.65): Potential SARA Title Ill Section 313 Chemicals are denoted by an asterisk(*) in Section I. Please note that if you prepackage or redistribute this product to industrial customers, SARA 313 may require a notice be sent to these customers.

NOTE: Information listed above is intended for use as guidance only and should not be solely relied upon for all regulatory compliance obligations / responsibilities. Neither state nor foreign regulations are addressed within the information listed above.

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SECTION 16 OTHER INFORMATION

MATERIAL CERT/FICA TION

- European Union Directive 2002/95/EC, Restriction of Hazardous Substances (RoHS)
- European Union Directive 2000/53/EC, End-of-Life Vehicles (ELV)
- GADSL, no declarable substances within supplied components at vehicle point-of-sale
- Free of mercury contamination and I or mercury compounds*

*As defined by GADSL V1.0 2005-01-25 and RoHS Directive (2002/95/EC)

DISCLAIMER

This Safety Date Sheet is offered pursuant to OSHA's Hazard Communication Standard (29 CFR 1910.1200). The information in the SDS was obtained from sources that we believe are reliable, but are beyond our direct supervision or control. We make NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, with respect to such information, and we assume no liability resulting from its use. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or, disposal of the product. It is the obligation of each user of this product to determine the suitability of this product and comply with the requirements of all appplicable laws regarding use and disposal of this product.

END OF SDS