AURALLOY™ RESEARCH

MATERIAL SAFETY DATA SHEET

CHROMATE INDUSTRIAL CORPORATION®
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FOR CHEMICAL EMERGENCY
Call Chemtrec day/night:
1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Auralloy Jigging / Heat Dam Putty
AURALLOY PART NUMBER: 8800
PRODUCT TYPE: Polymercaptan Resin
CHEMICAL FAMILY: N/A

DATE PREPARED: January 1998

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2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	% RANGE	OSHA PELSTEL	CAS #
2,4,6, Tri Phenol (dimethylaminomethyl)	1-2	5 PPM 8 HR TWA mg/m^3	90-72-2
Epoxy Resin (Diglycidyl Ether of Bisphenol A)	10-15	Oral LD_{50} (rbt) = 20 g/kg mg/m^3	25068-38-6
Magnesium Silicate	35-40	N/D	14807-96-6
Mercaptan Terminated Polyether	5-10	N/D	Trade Secret
Amorphous Silica	10-15	N/D	67762-90-7
Crystalline Silica	1-5	N/D	14808-60-7
Bronze Alloy	15-20	N/D	Unknown

* An asterisk (*) indicates the toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372.

3. HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Inhalation of welding fumes
EFFECTS OF OVEREXPOSURE:
INHALATION: Welding fumes and gases can be dangerous to your health. Pre-existing respiratory or allergic conditions may be aggravated in some individuals.
SKIN CONTACT: Arc rays can burn skin. Electric shock can kill.
EYE CONTACT: Arc rays can injure eyes.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Short-term (acute) overexposure to welding fumes may result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes.
CHRONIC HEALTH HAZARDS: Long-term (chronic) overexposure to welding fumes may lead to siderosis (iron deposits in the lungs) and is believed by some investigators to affect pulmonary function. Electric shock can kill.

4. FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES:
INHALATION: Call for medical aid. Employ first aid techniques recommended by American Red Cross.
INGESTION: Call for medical aid. Employ first aid techniques recommended by American Red Cross.
SKIN CONTACT: Call for medical aid. Employ first aid techniques recommended by American Red Cross.
EYE CONTACT: Call for medical aid. Employ first aid techniques recommended by American Red Cross.

5. FIRE FIGHTING MEASURES

FLASH POINT (METHOD USE): Nonflammable **FLAMMABLE LIMITS: LEL** N/A **UEL** N/A
EXTINGUISHING MEDIA: N/A
FIRE FIGHTING PROCEDURES: Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention during welding.
UNUSUAL AND EXPLOSION HAZARDS: No data available

6. ACCIDENTIAL RELEASE MEASURES

SPILLS OR LEAKS: No data available

7. HANDLING AND STORAGE

SPECIAL PRECAUTIONS: Read and understand the manufacturer's instructions and the precautionary label on this product. See American National Standard Z-49.1, Safety in Welding and cutting, published by the American Welding Society, P.O. Box 31040, Miami Fl 33135 and OSHA Publication 2206 (29CFR 1910), U.S. Goverment Printing Office, Washington D.C. 20402 for more details.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN: Read and understand the manufacturer's instructions and the precautionary label on this product. See American National Standard Z-49.1, Safety in Welding and Cutting, published by the American Welding Society, P.O. Box 351040, Miami, FL 33135 and OSHA Publication 2206 (29CFR 1910), U.S. Government Printing Office, Washington D.C. 20402 for more detail on the following:

RESPIRATORY: Use respirable fume respirator or air supplies respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.

SKIN PROTECTION: Wear head, hand and body protection which helps to prevent injury from radiation, sparks and electrical shock. See ANSI Z-49.1. At a minimum, this includes welder's gloves and a protective face shield and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.

EYE PROTECTION: Wear helmet or use face shield with filter lens. As a rule of thumb, start with a shade darker to see the weld zone. Then go to the next lighter shade which gives sufficient view of the weld zone. Provide screens and flash goggles to shield others.

VENTILATION: Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the TLV's in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.

ENGINEERING CONTROLS: No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A
VAPOR DENSITY (AIR = 1): N/A
SOLUBILITY IN WATER: Not Soluble
PERCENT VOLATILE BY VOLUME: N/A
VOLATILE WEIGHT: N/A
APPEARANCE AND ODOR: Blue color
PRODUCT WEIGHT: N/D
SPECIFIC GRAVITY (H_2O = 1): N/D
MELTING POINT: N/D
pH: N/A
EVAPORATION RATE: N/A
FORM: Putty
VOLATILE COMPONENTS: N/A

10. STABILITY AND REACTIVITY

Welding fumes cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedures and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating or galvanization), number of welds and volume of work area, quality and amount of ventilation, position of welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

When the electrode is consumed, the fume and gas decomposition products are different in percent and form from the ingredients listed in Section II. Fume and gas decomposition products, not the ingredients in the electrode, are important. Decomposition of products include those originating from the volatilization, reaction, or oxidation of the materials shown in Section II plus those from the base metal, coating, etc. as noted above. These components are virtually always present as complex compounds and not as metals (Characterization of Arc Welding Fume: American Welding Society).

Reasonably expected fume constituents would include fluorides and complex oxides of iron, manganese and silicon. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc in TIG welding.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet, if worn, or in the worker's breathing zone ANSI/AWS F1.I available from the American Welding Society, P.O. Box 351040, Miami, FL 33135.

11. TOXICOLOGICAL INFORMATION

EYE: No data available. **SKIN:** No data available. **INGESTION:** No data available. **INHALATION:** No data available.
SUBCHRONIC: No data available.
CHRONIC CARCINOGENICITY: NTP: Not Listed **IARC MONOGRAPH:** Not Listed **OSHA REGULATED:** Not Regulated
TERATOLOGY: No data available. **REPRODUCTION:** No data available. **MUTAGENICITY:** No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data available.
CHEMICAL FATE INFORMATION: No data available.

13. DISPOSAL CONSIDERATIONS

RCRA HAZARD CLASS: No data available
WASTE DISPOSAL METHOD: Dispose of any grinding dust or waste residues in accordance with EPA or local regulations.

14. TRANSPORT INFORMATION

TRANSPORTATION REQUIREMENTS (49CFR172-101)
D.O.T. CLASSIFICATION: Not regulated **D.O.T. SHIPPING NAME:** Not regulated

15. REGULATORY INFORMATION

EXPOSURE LIMITS: No data available.

16. OTHER INFORMATION

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in this MSDS. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.