

MATERIAL SAFETY DATA SHEET

Date: 2010/01/01 MSDS No. 778

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|--------------------------------------|
| Manufactured/Supplied by: | |
| Telephone Number: | |
| Emergency Telephone: | 800-424-9300 |
| Fax Number: | |
| Email: | |
| Product Trade Name/Product Classification(s): | WELDING MATERIALS(DEOXIDIZED COPPER) |

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENT

| CHEMICAL NAME | FORMULA | COMPOSITION |
|---------------|---------|-------------|
| Copper | Cu | 99.08% |
| Silicon | Si | 0.02% |
| Tin | Sn | 0.52% |
| Phosphor | P | 0.09% |

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: When this product is used for its intended purpose fumes and gases produced as a byproduct can be hazardous to your health.

Aggravation of pre-existing respiratory or allergic conditions may occur in some workers.

Arc Rays can injure eyes and burn skin.

Electric shock can kill.

Potential Health Effects

Eye: No special hazard risk under normal use. Dusts or particulates may cause mechanical irritation including pain, tearing, and redness. Scratching of the cornea can occur if eye is rubbed. Fumes may be irritating. Contact with the heated material may cause thermal burns.

Skin: No special hazard risk under normal use. Dusts or particulates may cause mechanical irritation due to abrasion. May cause skin irritation in sensitive individuals. Contact with heated material may cause thermal burns.

Ingestion: Ingestion is an unlikely route of exposure; no hazard in normal industrial use. Swallowing of excessive amounts of the dust may cause irritation, nausea, and diarrhea.

Inhalation: No special hazard risk under normal use. Dusts may cause irritation of the nose, throat, and lungs. Excessive inhalation of metallic fumes and dusts may result in metal fume fever, an influenza-like illness.

Chronic: Respiratory tract irritation, metal fume fever, eye irritation. Long term repeated exposures to excessive fume concentrations may lead to intoxication including kidney disease, anemia, nervous disorders, birth defects and nasal and lung cancer.

SECTION 4: FIRST AID MEASURES

Eyes: In case of overexposure to dusts or fumes, immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eye lids. Get medical attention if irritation persists. Thermal burns should be treated as medical emergencies.

Skin: In case of overexposure to dusts or particulates, wash with soap and plenty of water. Get medical attention if irritation develops or persists.

Ingestion: Get medical aid. Do not induce vomiting.

Inhalation: If inhaled, remove to fresh air. Seek medical attention if symptoms develop.

SECTION 5: FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. This material is not flammable. However, welding arc and sparks can ignite combustibles. Grinding or other machining operations can produce fine particulate dust that may explode in the presence of a strong ignition source. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Never use water as an extinguishing agent around molten or smoldering metal. Water will react violently around any molten metal. Use dry chemical, CO₂ or sand.

SECTION 6: ACCIDENTAL RELEASE MEASURE

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up and place in suitable containers for recycle or disposal. Spilled or released at long industrial condition: Remove ignition sources. Keep away from heat and flame, evacuate area. Avoid breathing dust, vapor, smoke. Wear protective equipment. Shut off source of the leak only if it is easy to do so. Keep spilled material out of sewers, ditches and bodies of water.

SECTION 7: HANDLING AND STORAGE

Handling: In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Do not eat, drink or smoke while handling the product. Keep away from sources of ignition.

Storage: Keep away from heat and flame. Store in a cool, dry place away from incompatible substances.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Individual Protection for Industrial Use

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles.

Skin: For prolonged or repeated contact use protective gloves.

Clothing: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|----------------|
| Physical State: | Wire |
| Color: | Red |
| Odor: | Odorless |
| pH: | Not available |
| Vapor Pressure | Not available |
| Boiling Point: | Not available |
| Freezing/Melting Point: | 1032°F |
| Autoignition Temperature: | Not available |
| Flash Point: | Not applicable |
| Explosion Limits: Lower: | Not applicable |
| Explosion Limits: Upper | Not applicable |
| Decomposition Temperature: | Not available |
| Solubility in water: | Insoluble |
| Specific Gravity Density: | 8.9 g/cm3 |

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials. Ignition sources, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, mineral acids.

Hazardous Decomposition Products: Metallic dust or fumes may be produced during welding, burning, grinding and possibly machining.

Hazardous Polymerization: Will not occur

SECTION 11: ECOLOGICAL INFORMATION

Ecotoxicity: Not available

Other: Do not empty into drains

SECTION 12: DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state and local regulations.

SECTION 13: TRANSPORT INFORMATION

| | IATA | IMDG | RID/ADR |
|-----------------------------|---------------|---------------|---------------|
| Proper shipping name | Not regulated | Not regulated | Not regulated |
| Hazard class | | | |
| Un number | | | |
| Packing Group | | | |

SECTION 14: REGULATORY INFORMATION

Regulatory Information: Reference to the local, national and EU/international regulations.

Hazard Symbols: Not available

Risk Phrases: Not available

Safety Phrases:

S 16 Keep away from sources of ignition.

S 22 Do not breathe dust.

SECTION 15: ADDITIONAL INFORMATION

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for this particular purpose.