

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND CONTACT INFORMATION

Product Name: Tin-Coated Copper Metal Accelerator

AR 400

Alpha Resources, Inc.
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Stevensville, MI 49127
Phone: 269-465-5559

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	%W	CHEMICAL NAMES	OSHA PEL (mg/m3)	ACGIH TLV (mg/m3)	NIOSH TWA (mg/m3)
7440-50-8	<100	Copper	1	1	N/A
7440-31-5	0-10	Tin	2	2	N/A

3. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation; fragment in cornea may cause cataracts.

SKIN: May cause skin irritation; possible "flu like" symptoms.

INHALATION: Low immediate health risk by inhalation

INGESTION: May be moderately irritating to stomach lining; can cause irritation of upper respiratory tract, headache, nausea, vomiting, diarrhea, chills, fever and aching muscles.

CHRONIC OVEREXPOSURE: Respiratory disease; lung, heart and kidney damage possible.

ACUTE OVEREXPOSURE: See above.

MEDICAL CONDITIONS AGGRAVATED: Chronic respiratory disease, skin diseases and Wilson's disease.

CARCINOGENICITY: None.

4. FIRST AID MEASURES

EYES: Remove fragments and flush eyes with water. .

INHALATION: Removed from exposure to fresh air immediately.

SKIN: Wash skin with plenty of water. Remove contaminated clothing and wash before reuse.

INGESTION: Induce vomiting if conscious.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Non-flammable

Flash Point: Not available

Flammable Limits: (% by Volume in Air): Lower: None Upper: None

AUTO-IGNITION TEMPERATURE: N/A

HAZARDOUS COMBUSTION PRODUCTS: Toxic metal fumes.

EXTINGUISHING MEDIA: Powdered dolomite, sodium chloride or graphite.

FIREFIGHTING INSTRUCTIONS: Fine Tin and Copper powder is a minor fire hazard. For Tin and Copper powder fires do not use water. Tin and Copper react violently with Acetylene, Ammonium Nitrate, bromates, chlorates, iodates, Chlorine Bromine, ($\text{Cl}_2 + \text{OF}_2$), Chlorine Trifluoride, Bromine Fluoride, ClF_2 , Ethylene Oxide, Fluorine, Hydrogen Peroxide, Sodium Azide, Sodium Peroxide, Cupric Nitrate and Sulfur.

6. ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: If material is molten, allow to cool and solidify. Clean up using method which minimizes the generation of dust.

7. HANDLING AND STORAGE

HANDLING: Avoid conditions which create toxic fumes or dust. Wash exposed skin after handling material.

STORAGE: Avoid storage near incompatible materials (see Section 10). Also avoid conditions which create toxic fumes or dust. Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local ventilation if toxic fumes are present.

RESPIRATORY PROTECTION: NIOSH/MSHA respirator if exposure above the PEL limit, or when toxic dust and/or fumes are present. .

SKIN AND HAND PROTECTION: None.

EYE AND FACE PROTECTION: Safety glasses are recommended if particles become airborne.

OTHER PROTECTIVE EQUIPMENT: None required.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Metal with silver white color

BOILING POINT: 4215° F (2324° C) (Copper)

FREEZE-MELT POINT: 450° (232° C) (Tin)

VAPOR PRESSURE: 1 Hg @ 1492° F (811° C) (Tin)

VAPOR DENSITY: N/A

SOLUBILITY IN WATER: Insoluble.

SPECIFIC GRAVITY: 8.76 - 8.92

pH: N/A

ODOR: None

PERCENT VOLATILES: N/A

EVAPORATION RATE: N/A

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

INCOMPATIBILITY: 1-Bromo-2-Propyne

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic metal fumes.

HAZARDOUS POLYMERIZATION: None.

11. TOXICOLOGICAL INFORMATION

Not available.

12. ECOLOGICAL INFORMATION

None available.

13. DISPOSAL CONSIDERATION

Dispose of in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

USA DOT: Not regulated

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

TSCA STATUS: On toxic Substance Control Inventory

CERCLA Reportable Quantity: Copper, 5000 lbs

RCRA Status: Not regulated

SARA TITLE III:

Section 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: Chronic

Section 313 Toxic Chemicals: Copper fumes

CANADAIN REGULATIONS

WHMIS: Not regulated

16. OTHER INFORMATION

Hazard Index: (0-4, 4= Extreme)

Health: 1 Fire: 1 Reactivity: 0

SUPPLEMENTAL INFORMATION

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

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