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♦♦♦ MATERIAL SAFETY DATA SHEET♦♦♦

CHEMICAL NAME: N/A
MATERIAL: TELLURIUM COPPER CDA 145

PHYSICAL DATA

COPPER:	Melting Point (^{0}C):	1083
	Appearance & Odor:	Distinct Reddish Metal
PHOSPHORUS:	Melting Point (^{0}C):	590 @ 43 atm
	Appearance & Odor:	Reddish – Brown Powder
TELLURIUM:	Melting Point (^{0}C):	449.5
	Appearance & Odor:	Silvery-White, metallic, lustrous element.

HAZARDOUS INGREDIENTS

	OSHA Permissible Exposure Limit (PEL)	ACGIH Threshold Limit Value (TLV)
COPPER: 99.9% by weight	1mg/m^3 (mist/dust) 0.1mg/m^3 (fumes)	1mg/m^3 (mist/dust) 0.1mg/m^3 (fumes)
PHOSPHORUS:. 004-.012% by weight	0.1mg/m^3 (yellow p)	0.1mg/m^3 (yellow p)
TELLURIUM: .40-.60$ by weight	0.1mg/m^3	0.1 mg/m^3

HEALTH HAZARD DATA

ROUTES OF EXPOSURE: Inhalation of fumes from welding or burning, dust from cutting or grinding.

ACUTE EFFECTS: Excessive inhalation of fumes from many metals can produce an acute reaction know as (metal fume fever.) Symptoms consist of chills and fever (very similar to and easily confused with flu symptoms) which come on a few hours after large exposures. Long0term effects of metal fume fever have not been noted.

EFFECTS OF OVEREXPOSURE: NOTE: Signs and symptoms of overexposure may include any of the following. Many of these effects, it should be remembered, are also related to other causal factors, occupational or otherwise. It should also be noted that, with the exception of hypersensitive or hypersusceptible persons these effects are only associated with acute or chronic overexposure.

COPPER: Industrial exposure to Copper fumes, dusts or mists results in metal fume fever with atrophic changes in nasal mucous membranes. Chronic poisoning results in Wilson's disease, characterized by a hepatic cirrhosis, brain damage, demyelination, renal disease and copper deposition in the cornea.

PHOSPHORUS: phosphorus can be absorbed through the skin, respiratory tract, and the gastrointestinal tract. Contact with the skin may cause severe and painful burns and the contact area turns grayish white. Infection often occurs. Direct eye contact may cause ocular damage. Inhalation of vapors (oxide) has caused respiratory tract irritation. Chronic intoxication includes gastrointestinal distress and garlic breath. A classical effect of chronic Phosphorus intoxication is necrosis of the jaw.

TELLURIUM: Inhalation of tellurium fumes presents the greatest industrial hazard. A metallic taste results after excessive absorption. Garlic breath is also present as a result of overexposure. Chronic exposure also results in gastrointestinal distress, dry-mouth, and somnolence.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If acute overexposure to fumes occurs, remove victim from the adverse environment and seek medical attention.

SKIN CONTACT: If dust or mist gets on the skin, wash the contaminated skin with soap and water. Remove contaminated clothes and launder before using again.

EYE CONTACT: Flush with large amounts of water.

INGESTION: If particles are ingested, give 1-2 glasses of water or mild. Induce vomiting only if victim is fully conscious and has not convulsed. All ingestion cases should have immediate medical aid.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A

FLAMMABLE LIMITS (LEL/UEL): N/A

AUTOIGITION TEMP: N/A

EXTINGUISHING DATA: Metal products are not a fire hazard. However, fine dust generated in grinding operations may present a fire or explosion hazard. Special mixtures of dry chemical suitable for metal fire.

REACTIVITY DATA

COPPER: Copper reacts violently with Acetylene, Ammonium nitrate, Bromates, Chlorates, Iodates, Chlorine, C1F3, Ethylene Oxide, Fluorine, Hydrogen Peroxide, Hydrazic Acid, Hydrogen Sulfide, Pb $(N_3)_2$, K_2O_2, NaN_3, and Na_2O_2. Copper is incompatible with 1-bromo, and 2-propyne. Copper fumes are incompatible with Acetylene gas. Copper dust and mist are incompatible with Acetylene gas and magnesium metal.

PHOSPHORUS (P): Phosphorus is incompatible with Potassium Chlorate, potassium permanganate, peroxides, and oxidizing materials. It can react with reducing materials. When heated, Phosphorus emits highly toxic fumes of PO_x. Yellow Phosphorus (P_4) is incompatible with air and all oxidizing agents. It will ignite spontaneously in air.

TELLURIUM: Tellurium is incompatible with ammonia. When heated to decomposition, it emits very toxic fumes of Tellurium oxides.

SPILL OR LEAK PROCEDURES

Minimal problems with spills of this product would occur because of its solid form. However, if there is a spill of dust, clean up using methods, which avoid dust generation, and the use of water, such as vacuum. If airborne dust is generated during the clean up use an appropriate NIOSH approved respirator. Waste disposal method: Dispose of in accordance with appropriate federal, state, and local regulations.

SPECIAL PROTECTION INFORMATION

VENTILATION: Local exhaust ventilation should be used to keep worker exposures within allowable limits during welding and grinding.

RESPITORY PROTECTION: When engineering administrative controls are not feasible to control overexposure or while they are being instituted, appropriate NIOSH approved respirators should be used and selected according to 29 CFR 1910.134.

PROTECTIVE GLOVES: As needed to protect against physical hazards.

EYE PROTECTION: Appropriate personal protection equipment for the eyes should be worn when there is a reasonable probability of injury due to welding or grinding

OTHER PROTECTIVE EQUIP: N/A

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: The scrap metal itself presents no health hazard unless it is welded, burned, ground or cut. During these procedures, it is possible that excessive amounts of fumes or dusts may be generated. It is advised that your particular operation be evaluated by a competent health professional to determine whether or not a hazard exists.

SATURN INDUSTRIES, INC.
John E. Lee, President