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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION Ag	PRODUCT NAME Silver
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
Silver	7440-22-4	100	0.01MG/M3	0.01 MG/M3

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR Soft, ductile, malleable, lustrous, white metal; odorless
MELTING POINT (BASE METAL) 1763F (962C)	SPECIFIC GRAVITY 10.5

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N/A	UEL N/A
EXTINGUISHING MEDIA Dry powder class for metal fires – water, foam, etc.			
SPECIAL FIRE FIGHTING PROCEDURES Use any procedure suitable for surrounding fire.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Moderate hazard in contact with strong oxidizers – react with concentrated oxidizing acids.			

Section 5- REACTIVITY DATA	
STABILITY Stable	INCOMPATABILITY (MATERIALS TO AVOID) Acetylene, ammonia, chlorine trifluoride, ethanol and nitric acid, ethyleneimine and hydrogen peroxide
CONDITIONS TO AVOID None Reported	
HAZARDOUS DECOMPOSITION PRODUCTS	

Section 6- HEALTH HAZARD GUIDE
MAJOR EXPOSURE HAZARD <input type="checkbox"/> Inhalation <input type="checkbox"/> Skin <input type="checkbox"/> Skin Absorption <input type="checkbox"/> Eye Contact <input type="checkbox"/> Ingestion
EFFECTS OF OVEREXPOSURE None from silver metal. Silver salts may stain skin and eyes and irritate skin. May cause conjunctivae which could lead to possible blindness. Silver may also corrode skin, eyes and intestinal tract. Silver is cumulative when ingested but produces no constitutional symptoms. Skin, throat and eyes may develop a slate grey color. Continued exposure causes argyria, rarely seen at present, with pigmentation of conjunctiva, skin and other organs. Irritation of septum, throat and skin.
EMERGENCY & FIRST AID PROCEDURES INHALATION: Remove from exposed area to fresh air immediately. If breathing has stopped, perform artificial respiration. Call a physician. SKIN CONTACT: Flush skin with water until no evidence of the chemical remains. Call a physician. EYE CONTACT: Irrigate eyes with water, occasionally lifting upper and lower lids, until no evidence of the chemical remains. Call a physician. INGESTION: If swallowed, give salt water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. Call a physician.

Section 7- SPILL OR LEAK PROCEDURES
SPILL OR LEAK PROCEDURES Slight hazard during clean-up. Collect dust so as to cause minimum airborne dust and loss. Secure to prevent theft or loss.
WASTE DISPOSAL METHODS Collect scrap for resale value. Non-recoverable silver is considered hazardous waste to be treated according to RCRA 40 CFR 261-265.

Section 8- SPECIAL PROTECTION
RESPIRATORY High efficiency particulate respirator. For higher concentrations use full face supplied air respirator.

VENTILATION

Local exhaust required for melting, casting and etching. Mechanical adequate to maintain PEL.

EYE PROTECTION & PROTECTIVE CLOTHING

Wear protective clothing. Contact lenses should not be worn when airborne dust is present. Use protective gloves for heat and/or stain protection. Wear goggles or face shield for eye protection.

Section 9- SPECIAL PRECAUTIONS

Handling and storage:

Storage and/or handling involve no hazard.

Hygienic Practices:

Shower before changing into street clothes. Wash hands before eating, drinking or smoking.

Use special vacuum cleaners and dust collectors with high efficiency filters to collect dust or powders.

Operations which generate dust and/or fume should be done inside a fume hood or process enclosure.

Use normal protective equipment and hoods when dissolving or etching silver.

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