



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 4-11-07

CHEMICAL IDENTITY

| | |
|----------------------------------------------------------------------------------|---------------|
| LABEL IDENTITY | SILVER |
| CHEMICAL NAME/SYNONYMS | SILVER |
| FORMULA | Ag |
| CHEMICAL FAMILY | METAL |
| HAZARDOUS INGREDIENTS | SILVER |
| %: 100 TLV: 0.1mg/m3 CAS: 7440-2-4 OSHA/PEL: 10mg/m3 | |

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------|-------------------------------------------------------------------|
| COLOR, FORM AND ODOR | Soft, ductile, malleable, lustrous, white Metal, odorless. |
| BOILING POINT | 2212 |
| DENSITY (gm/cc) | 19,50 at 20° |
| VAPOR PRESSURE @ 20° | NA |
| % VOLATILE BY VOLUME (%) | NA |
| REACTION WITH WATER | None |
| EVAPORATION RATE (H2O=1) | NA |
| SOLUBILITY IN WATER | Insoluble |
| MELTING POINT | 961.93 |

FIRE AND EXPLOSION HAZARD DATA

| | |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLASH POINT | NA |
| AUTOIGNITION TEMPERATURE (° C) | ND |
| FLAMMABILITY | Flammable hazard as a fine powder or dust |
| EXTINGUISHING MEDIA | Do not use water on metal fires! Use dry chemical, Co2, sand, graphite. |
| SPECIAL FIRE FIGHTING PROCEDURES | Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes. |
| UNUSUAL FIRE & EXPLOSION HAZARDS | Material may emit toxic fumes if involved in a fire. Moderate fire and explosion hazard as a fine powder or dust when exposed to heat or flame, or by chemical reaction with Cf2H2, NH3, bromazide, C1F3, ethylene imine, H2O2, oxalic acid, H2So4, tartaric acid. Material is blackened by ozone, H2S, S. (powder - 200, 1325 mesh). |



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REACTIVITY DATA

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STABILITY | Stable |
| CONDITIONS CONTRIBUTING TO UNSTABILITY | None |
| INCOMPATIBILITY (MATERIALS TO AVOID) | Acetylenic compounds, Aziridine, Bromine azide, 3-Bromopropyne, Carboxylic acids, C1F3, (Cu, Ethylene glycol), electrolytes, (ethanol, HNO3), Ethylene oxide, ethyl hydroperoxide, H2O2, Iodoform, ozonides, peroxy-monosulfuric acid, Peroxyformic acid. |
| HAZARDOUS DECOMPOSITION PRODUCTS | Ag ₂ O |
| HAZARDOUS POLYMERIZATION | Will Not Occur |
| CONDITIONS TO AVOID | Heat, flames, sparks, incompatible materials. |

SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Wear self-contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure that proper ventilation is available. Vacuum up the spill using a high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHOD:

Dispose of in accordance with applicable federal, state, and local regulation.

SPECIAL PROTECTIVE INFORMATION

| | |
|----------------------------|-----------------------------------------------------------------------|
| RESPIRATORY PROTECTION | Wear NIOSH-approved dust-mist-fume cartridge respirator. |
| LOCAL EXHAUST | Maintain exposure below TLV. |
| MECHANICAL (general) | Recommended |
| SPECIAL | Handle in a controlled atmosphere. |
| OTHER | NA |
| PROTECTIVE GLOVES | Neoprene |
| EYE PROTECTION | Safety glasses |
| OTHER PROTECTIVE EQUIPMENT | Wear protective clothing to prevent contamination of skin and clothes |

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

Store in tightly closed container in a cool dry place, wash hands and face thoroughly after handling and before meals.



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TRANSPORTATION REQUIREMENTS

DOT CLASS: **Not Classified**
UN NUMBER: **NC**
IMCO CLASS: **NC**
OTHER:

PRECAUTIONARY LABELING

NONE

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, **ANGSTROM SCIENCES** MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR THE RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

NA= NOT APPLICABLE

ND= NO DATA FOUND