

**EMS CATALOG NO: 21050**  
**EMS PRODUCT: Silver Nitrate**  
**DATE: 06/15/2006**  
**PAGE NUMBER: One of 5**

**MATERIAL SAFETY DATA SHEET**

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to obtained from the use thereof.

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FOR PRODUCT AND SALES INFORMATION

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CONTACT ELECTRON MICROSCOPY SCIENCES OFFICE ABOVE.

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PRODUCT IDENTIFICATION

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PRODUCT NAME: **Silver Nitrate**

CAS NUMBER: 7440-22-4

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HAZARDOUS INGREDIENTS/IDENTITY

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Section 313 Supplier Notification:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the

Emergency Planning & Community Right-to-Know Act of 1986  
and of 40 CFR 372:

HAZARDOUS CAS COMPONENTS NUMBER	PERCENT <u>BY WEIGHT</u>	OSHA <u>PEL</u>	ACGIH <u>TLV</u>
Silver NFPA RATING: 2-0-0	63.5%	0.01 mg/m <sup>3</sup> HMIS RATING: 2-0-0-H	0.01 mg/m <sup>3</sup> 7440-22-4

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PHYSICAL & CHEMICAL CHARACTERISTICS

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BOILING POINT:	212°C
SPECIFIC GRAVITY (H <sub>2</sub> O=1):	4.35
VAPOR PRESSURE (mm Hg):	Not volatile
VAPOR DENSITY (AIR=1):	Not applicable
SOLUBILITY IN WATER:	952 gr/100 ml water at 100°C
REACTIVITY IN WATER:	None
APPEARANCE AND ODOR:	Colorless or white odorless crystals.
MELTING POINT:	212°C

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FIRE & EXPLOSION DATA

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FLASH POINT:	N/A
METHOD USED:	Not flammable
FLAMMABLE LIMITS IN AIR % BY VOLUME:	LEL LOWER: N/A UEL UPPER: N/A
AUTO-IGNITION TEMPERATURE:	Does not ignite.
EXTINGUISHER MEDIA:	Proper to the primary cause of fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Use NIOSH/MSHA approved self contained breathing apparatus & full protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	N/A

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## PHYSICAL HAZARDS (REACTIVITY DATA)

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STABILITY: Stable

CONDITIONS TO AVOID: Not applicable

INCOMPATIBILITY (MATERIALS TO AVOID):

Organics, reducing agents, excessive temperatures

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Not applicable

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## HEALTH HAZARDS

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ACUTE: Unknown

CHRONIC: Argyria, a blue-grey discoloration of the skin, mucous membranes and eyes may result from inhalation of silver.

SIGNS AND SYMPTOMS OF EXPOSURE:

Caustic and irritating to skin, mucous membranes and eyes.  
Can cause burns, causing skin to darken and/or peel.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:

NATIONAL TOXICOLOGY PROGRAM:	No
I.A.R.C. MONOGRAPHS:	No
OSHA:	No

EMERGENCY AND FIRST AID PROCEDURES: See below

ROUTES OF ENTRY:

INHALATION: Excessive exposure (inhalation) can cause cosmetic discoloration (argyria).

EYES: Wash well with water, 6% common salt solution if available.

SKIN: Wash well with water.

INGESTION: Poisonous, fatal if swallowed. If victim is conscious, induce vomiting. Call physician.

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### SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

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#### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Store in a safe, dry place; avoid contact with organics.  
**DO NOT** store in wooden, cardboard or paper container.

OTHER PRECAUTIONS: None

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

Vacuum up solid, soak up solution, place solution in plastic bottle or bag.

#### WASTE DISPOSAL METHODS (CONSULT FEDERAL, STATE, AND LOCAL REGULATIONS):

Send to refiner for silver recovery.

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### SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

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RESPIRATORY PROTECTION: Air Purifying HEPA Respirator

VENTILATION: LOCAL EXHAUST: To dustbag or wet scrubber.

PROTECTIVE GLOVES: Elbow length neoprene

EYE PROTECTION: Goggles or face mask

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Rubber or plastic apron.

#### WORK/HYGIENIC PRACTICES:

Avoid breathing dust, do not get on skin or clothing,  
wash after handling.