

Silve

KJLC Product Code: EVMAG40EXE-A

Kurt J. Lesker Company

Silver metal, pieces

Manufacturer MSDS Number: Ag



SECTION 1 : Chemical Product and Company Identification

MSDS Name: Silver metal, pieces

Manufacturer Name: Kurt J. Lesker Company

Address:

1925 Worthington Ave
Clairton, PA 15205

For emergencies in the US, call CHEMTREC: 800-424-9300

Other Phone: US National Poison Hotline: (800)222-1222

Manufacturer MSDS Creation Date:

06/26/2006

Manufacturer MSDS Revision Date:

06/26/2006

Synonyms:

Silver metal - particle size greater than 591 microns (+30 mesh) argentum, shell silver

Chemical Family: Metal

Chemical Formula: Ag

Molecular Weight: 107.86

DOT HAZARD LABEL

No data.

Product Codes:

Ag



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SECTION 2 : Hazardous Ingredients/Identity Information

Chemical Name	CAS#	% Weight	
Silver (Argentum)	7440-22-4	0.0 -100.0 %	

RTECS:

VW3500000



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SECTION 3 : Physical And Chemical Characteristics

Physical State/Appearance:

White-metallic pieces, no odor.

Physical State:

Gas , Liquid , Solid

pH:

No data.

Vapor Pressure:

0 (VS. AIR OR MM HG)

Vapor Density:

No data. (VS. AIR = 1)

Boiling Point:

2212.00 deg C (4013.6 deg F)

Melting Point:

961.90 deg C (1763.4 deg F)

Solubility In Water:

insoluble

Specific Gravity:

10.5 at 20.0 C (68.0 F) (WATER = 1)

Density:

No data.

Evaporation Point:

No data. (VS BUTYL ACETATE=1)

Percent Volatile:

N.A.

FlashPoint:

N.A.

Upper Flammable Explosive Limit:

NA

Lower Flammable Explosive Limit:

NA



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SECTION 4 : Fire And Explosion Hazards

Flash Point:

N.A.

Flash Point Method:

No data.

Upper Flammable or Explosive Limit: NA

Lower Flammable or Explosive Limit: NA

Extinguishing Media:

Not applicable. Use suitable extinguishing agent for surrounding materials and type of fire.

Fire Fighting Instructions:

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire Hazards:

Dust is flammable



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SECTION 5 : Health Hazards

Silver (Argentum):

Route of Exposure:

Inhalation? Yes , Skin? No , Eyes? No , Ingestion? Yes , Other: N

Potential Health Effects:

Eye Contact:

May cause irritation.

Skin Contact:

May cause irritation.

Inhalation:

May cause irritation to the upper respiratory system, pulmonary edema, pulmonary fibrosis and lung damage.

Ingestion:

May cause gastrointestinal disturbances.

Chronic Eye Contact:

May cause argyrosis.

Chronic Skin Contact:

May cause argyrosis and dermatitis.

Chronic Inhalation:

May cause argyrosis, bronchitis, headache, fatigue, sinusitis, weight loss and kidney injury.

Chronic Ingestion:

May cause kidney injury.

Carcinogenicity:

NTP? No, IARC Monographs? No, OSHA Regulated? No

Target Organs:

May affect the respiratory system, skin, eyes and kidney.

Signs/Symptoms:

INHALATION: May cause a red, dry throat, coughing and bluish-grey skin. **INGESTION:** May cause abdominal distress, nausea and vomiting. **SKIN:** May cause redness, burning, itching and bluish-grey skin. **EYE:** May cause redness, burning, itching and watering.

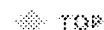
Other Potential Health Effects:

SILVER OTHER TOXICITY DATA: mul-rat TDLO: 330 mg/kg/43W-I:ETA imp-rat TDLO: 2400 mg/kg ihl-hmn TCLO: 1 mg/m³:SKN imp-mus TDLO: 11 gm/kg imp-rat TD: 2570 mg/kg

Aggravation of Pre-Existing Conditions:

None

See "Section II" LD 50/LC 50: See "Carcinogenicity/Other Information"



SECTION 6 : Emergency And First Aid Procedures

Physical Health Hazard:

HEALTH HAZARDS (ACUTE AND CHRONIC): The absorption of silver compounds into the circulation and the subsequent deposition to the reduced silver in various tissues of the body may result in the production of a generalized greyish pigmentation of the skin and mucous membranes, a condition known as argyria. The introduction of fine particles of silver through breaks in the skin produces a local pigmentation at the site of the injury. 1 mg/m³ of silver dust causes skin effects. The condition develops slowly, usually after 2-25 years of exposure. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

Eye Contact:

Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

Skin Contact:

Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.

Inhalation:

Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention.

Ingestion:

Give 1-2 glasses of milk or water and induce vomiting; seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

Note to Physicians:

No data available.



SECTION 7 : Reactivity Data

Chemical Stability:

Unstable [] Stable [X]

Conditions to Avoid:

CONDITIONS TO AVOID - INSTABILITY: None; **CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION:** None

Incompatibilities with Other Materials:

Acetylene and its compounds, hydrogen peroxide, ammonia, aziridine, bromine azide, bromopropane, carboxylic acids, copper + ethylene glycol, electrolytes + zinc, ethanol + nitric acid, ethylene oxide, ethyl hydroperoxide,

ethyleneimine, iodoform, nitric acid, ozonides, peromonosulfuric acid, peroxyformic acid, C₂H₂, bromoazide, ClF₃, ethyleneimine, H₂O₂, oxalic acid, H₂SO₄ tartaric acid.

Hazardous Polymerization:

Will occur [] Will not occur [X]

Hazardous Decomposition Products:

Silver oxides.



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SECTION 8 : Precautions For Safe Handling

Spill Cleanup Measures:

Wear appropriate respiratory and protective equipment specified in section VIII—control measures. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Other Precautions:

None

HAZARD LABEL INFORMATION:

Store in cool, dry area Store in tightly sealed container Wash thoroughly after handling

Handling:

None

Storage:

None

Hygiene Practices:

WORK/HYGIENIC/MAINTENANCE PRACTICES: Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Waste Disposal:

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



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SECTION 9 : Control Measures

Ventilation System:

If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hand Protection Description:

Rubber gloves

Eye/Face Protection:

Safety glasses

Protective Clothing/Body Protection:

Protective gear suitable to prevent contamination

Respiratory Protection:

NIOSH – approved respirator

NIOSH approved respirator Impervious gloves Safety glasses Clothes to prevent skin contact

Ingredient Guidelines

Ingredient: Silver {Argentum}

Guideline Information:

ACGIH TLV: .1 mg/m³; OSHA PEL: .01 mg/m³; OTHER LIMITS: NE



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SECTION 10 : Other Information

Silver {Argentum}:

Section 302:

No

Section 304:

Yes 1000 LB

Section 313 Toxic Release Form:

Yes

HMIS:

Health Hazard: 2

Fire Hazard: 0

Reactivity: 0

Personal Protection: F

Label Text:

LABEL INFO. Move to fresh air; induce vomiting; flush with water

Disclaimer:

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Comment:

OTHER HAZARD RATINGS: Health: 2 Flammability: 0 Reactivity: 0 Special Hazard: F Minimal: 0 Slight: 1 Moderate: 2 Serious: 3 Extreme: 4

Abbreviations used

NA=Not Applicable NE: Not Established

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