

# MATERIAL SAFETY DATA SHEET

Note: This product has been discontinued by the manufacturer. This is the latest MSDS available.

*Product Name:* Silverdag

*Catalog Number:* 60800

*DOT Hazard Class:* Flammable Liquid (as shipped – Excepted Quantity)

*DOT Proper Shipping Name:* Methyl Isobutyl Ketone Solution

*Other Names:* Electrodag 415 (Mfg. by Acheson Colloids, Port Huron, MI)

*UN/NA ID No.:* UN 1245

*MSDS Prepared:* 12/03/03

*Distributed By:* Ladd Research

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## HAZARDOUS COMPONENTS

	<i>CAS Number</i>	<i>Percent</i>	<i>Exposure Limits</i>
Silver	7440-22-4	30-60%	0.10 mg/m <sup>3</sup> (ACGIH TLV)
Methyl Isobutyl Ketone	108-10-1	15-40%	50 ppm (ACGIH TLV)
Proprietary OSHA Non-Hazardous Material		3-7%	Not Established

## PHYSICAL AND CHEMICAL DATA

Vapor Pressure: 14.50mm Hg at 20°C

Specific Gravity: 1.75

Solubility in Water: partial

Boiling Point: 237°F

VOC: 668 g/l

Reduced VOC: 769 g/l

Viscosity (cps): 300

Appearance: Silver Liquid

## FIRE AND EXPLOSION HAZARD DATA

**FlashPoint and Method:** 64°F (Tag Closed Cup)

**General Hazard:** Highly Flammable. Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas. Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated.

**Fire Caution:** This product has a low flash point. Use of water spray when fighting fire may be inefficient.

**Small Fire Fighting Instructions:** Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Hazardous Combustion or Decomposition Products:** Oxides of silver, Oxides of carbon

## HEALTH HAZARD DATA (Potential Health Effects)

**Ingestion:** Harmful or fatal if swallowed.

**Eye Contact:** Causes moderate eye irritation.

**Skin Contact:** May cause moderate skin irritation.

**Other Skin Contact:** The components of this product are not expected to be absorbed through the skin.

**Inhalation:** Vapors and mists irritate eyes, nose and throat. May be harmful if inhaled.

**Chronic:** This product contains silver metal. Chronic inhalation or ingestion of silver **salts** may cause argyria characterized by a permanent blue-gray discoloration of the eyes, skin, mucous membranes, and internal organs.

***EMERGENCY AND FIRST AID***

**Ingestion:** If swallowed, do not induce vomiting. Seek medical attention.

**Skin Contact:** If excessive skin contact with this product occurs, flush immediately with plenty water, followed by washing with soap and water.

**Eye Contact:** If this product is splashed into the eyes, flush immediately with plenty water for at least 15 minutes.

**Inhalation:** If excessive amounts of vapors or mists from this product are inhaled, remove to fresh air. Apply artificial respiration and other supportive measures as required. Consult a poison center, emergency room or lung specialist for additional information and guidance.

***REACTIVITY DATA***

**General:** This product is stable and hazardous polymerization will not occur.

**Incompatible Material and Conditions to Avoid:** Strong oxidizers.

***SPILL, DISPOSAL AND STORAGE INFORMATION***

**Spills:** Product may flash back. Eliminate all ignition sources. All equipment used when handling the product must be grounded. Containers may explode when heated.

**Disposal:** Consult relevant local, state and federal laws.

**Storage:** Keep container closed. Loosen closure cautiously before opening. Store in a cool and well-ventilated place.

***PROTECTIVE EQUIPMENT AND CONTROL MEASURES***

**Engineering Controls:** Provide sufficient mechanical ventilation to maintain exposure below TLV's. NIOSH/MSHA-approved respirator may be used to reduce exposures.

**Eye Protection:** Vapor tight chemical splash goggles should be worn when the possibility exists for eye contact due to splashing or spraying of liquid or the generation of airborne particles or vapors.

**Skin Protection:** Wear protective clothing.

***SECTION 313 SUPPLIER NOTIFICATION***

This product contains two chemicals which are listed in Section 313 at or above *de minimus* concentrations.

Methyl isobutyl ketone	<50%
Silver	>50%

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The information presented is believed to be correct and is the most accurate information available to us at this time. However, Ladd Research makes no warranty, express or implied, and assumes no liability for this information and the product described herein.