



Material Safety Data Sheet

Silver diethyldithiocarbamate APHA (0.25% in chloroform)

Section 1 - Chemical Product and Company Identification

MSDS Name:

Silver diethyldithiocarbamate APHA (0.25% in chloroform)

Catalog Numbers:

LC22430

Synonyms:

Company Identification:

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
67-66-3	Chloroform	balance
1470-61-7	Silver diethyldithiocarbamate	0.25
321-98-2	(1S,2R)-ephedrine hemihydrate	0.16

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless

If inhaled, remove to fresh air. if not breathing, give artificial respiration. if breathing is difficult, give oxygen. Caution! May cause respiratory and digestive tract irritation. Causes severe eye and skin irritation.

Target Organs: none known.

Potential Health Effects

Eye:

Eye contact may cause stinging, irritation, blepharospasm, burning pain, lacrimation, redness.

Skin:

Skin contact may cause irritation with destruction of epithelium.



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Ingestion:

Ingestion may cause burning of mouth, throat, gastrointestinal tract, nausea, vomiting, diarrhea, abdominal pain, respiratory failure.

Inhalation:

May cause respiratory tract irritation. Central nervous system depression may be preceded by excitation and inebriation. 1000-2000ppm may cause dizziness, headache, nausea. 4000ppm may cause vomiting, disorientation. 15000ppm may cause rapid loss of consciousness. More than 20000ppm may cause respiratory failure, death.

Chronic:

Prolonged or repeated eye contact may cause conjunctivitis. Reproductive effects have been reported in animals. Prolonged skin exposure may cause dermatitis with drying, cracking skin. Repeated exposure to 77-237ppm has caused lassitude, dullness, urinary frequency, gastrointestinal disturbances. Repeated ingestion may cause liver and kidney damage.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Get medical aid at once. Perform gastric lavage immediately. Support cardiovascular system. Start oxygen and ventilation immediately.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Do not scatter contents with excess water. Move container if possible, avoid breathing vapors or dust. Slight fire hazard when exposed to heat or flame. Fight fire from maximum distance. Can be explosive when confined with water, especially boiler feed/cooling water.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 67-66-3: Not published.

CAS# 1470-61-7: Not published.

CAS# 321-98-2: Not published.



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Explosion Limits:

Lower: Upper:

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Use water spray to disperse the gas/vapor. Absorb liquid with fly ash or cement powder. Small spills can be absorbed with sand or other absorbent materials. Scoop up and place in suitable containers for proper disposal. Soil spill-- dig holding pond to contain spill and dike with barrier of soil or sand bags.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Chloroform	10 ppm TWA	NIOSH Potential Occupational Carcinogen - see Appendix A	C 50 ppm; C 240 mg/m ³ ;
Silver diethyldithiocarbamate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
(1S,2R)-ephedrine hemihydrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

Chloroform: 2 ppm TWA; 9.78 mg/m³ TWA

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Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



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Respirators:

Any self-contained breathing apparatus with full facepiece.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless

Odor: ethereal odor

pH: No information found.

Vapor Pressure: 160 mm Hg @ 20C

Vapor Density: 4.12

Evaporation Rate: 0.09 (buaoc=1)

Viscosity: No information found.

Boiling Point: 62°C (143.60°F)

Freezing/Melting Point: -64°C (-83.20°F)

Decomposition Temperature: No information found.

Solubility in water: Slightly soluble.

Specific Gravity/Density: 1.48

Molecular Formula: No information found.

Molecular Weight No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Excess heat.

Incompatibilities with Other Materials

Alkalies, oxidizing agents, sodium, perchloric acid, phosphorus pentoxide, acetone, methyl alcohol, sodium hydroxide, dinitrogen tetroxide, ketones (e.g. acetone, acetophenone, MEK, MIBK), hydroxides, fluorine, chromic acid, lithium, aluminum, magnesium, nitrochloride.

Hazardous Decomposition Products

Hydrogen chloride, phosgene, oxides of carbon, chlorine, oxides of chlorine.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 67-66-3: FS9100000.

CAS# 1470-61-7 unlisted.

CAS# 321-98-2: KB0600000.



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LD50/LC50:

CAS# 67-66-3:

Inhalation, rat: LC50 = 47702 mg/m³/4H

Oral, mouse: LD50 = 36 mg/kg

Oral, rat: LD50 = 908 mg/kg

Skin, rabbit: LD50 = >20 gm/kg.

CAS# 1470-61-7:

No information found. CAS# 321-98-2:

No information found.

Carcinogenicity:

CAS# 67-66-3

ACGIH: A3 - Animal Carcinogen

California: carcinogen; initial date 10/1/87

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 2B

CAS# 1470-61-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 321-98-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Chloroform is an anesthetic and skin, eye, respiratory tract irritant, may be absorbed by inhalation or ingestion. Affects central nervous system, liver. Death may occur from cardiac arrest. Increased risk to those with liver, kidney, skin or heart disease.

Teratogenicity:

Reproductive:

Mutagenicity

Neurotoxicity

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: Chloroform, solution

Hazard Class: 6.1

UN Number: UN1888

Packing Group: PG III



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Section 15 - Regulatory Information

US Federal

TSCA

CAS# 67-66-3 is listed on the TSCA Inventory.
CAS# 1470-61-7 is listed on the TSCA Inventory.
CAS# 321-98-2 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 67-66-3: final RQ = 10 pounds (4.54 kg)

CERCLA/SARA Section 313

This material contains Chloroform (CAS# 67-66-3, balance%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Chloroform can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 67-66-3 is listed on Canada's DSL List.
CAS# 1470-61-7 is listed on Canada's DSL List.
CAS# 321-98-2 is listed on Canada's NDSL List.

Canada Ingredient Disclosure List

CAS# 67-66-3 is listed on Canada's Ingredient Disclosure List.
CAS# 1470-61-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 321-98-2 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 29, 1998
Revision Date: September 10, 2004

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