ISO9001:2000 Certified

Material Safety Data Sheet

Diphenylcarbazide, 0.5% in Acetone

Section 1 - Chemical Product and Company Identification

MSDS Name:

Diphenylcarbazide, 0.5% in Acetone

Catalog Numbers:

LC13670

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
67-64-1	Acetone	balance
140-22-7	1,5-diphenylcarbohydrazide	0.5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless
Danger! Flammable liquid. Causes severe eye irritation. May cause respiratory and digestive tract irritation. May cause skin irritation. May cause central nervous system depression. May cause liver and kidney damage. May cause reproductive and fetal effects.
Flash Point: -18°C.
Target Organs: Kidneys, central nervous system, liver.

Potential Health Effects

Eye:

May cause moderate eye irritation.

Skin:

May cause skin irritation. Prolonged and/or repeated contact may cause irritation and/or dermatitis. Exposure may cause irritation characterized by redness, dryness, and inflammation. Skin absorption not a factor.

Ingestion:

Ingestion may include symptoms of restlessness, gastritis, vomiting, hematemisis, stupor, twitching, collapse, convulsions and paralysis.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma.

Chronic:

Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Prolonged or repeated skin contact may cause defatting and dermatitis. Conjunctivitis and edema may occur.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until chemical is gone. Get medical aid at once.

Skin:

Get medical aid if irritation develops or persists. Remove contaminated clothing to reduce further exposure. Rinse area with large amounts of water for at least 15 minutes.

Ingestion:

Give conscious victim 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid at once. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs). Medical personnel may remove the alcohol through gastric lavage with water or 3-5% sodium bicarbonate solution unless 2 hours or more have elapsed since ingestion.

Inhalation:

Get medical aid at once. Move victim to fresh air immediately. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Keep victim warm, at rest.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Flammable Liquid. Vapor-air mixtures are explosive at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

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

Autoignition Temperature:

869°F (465.00°C)

Flash Point:

-18°C (-0.40°F)

NFPA Rating:

CAS # 67-64-1 health-1; flammability-3; reactivity-0
CAS# 140-22-7: Not published.

Explosion Limits:

Lower: 2.6 Upper: 12.8

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Wear a self contained breathing apparatus and appropriate Personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, diatomaceous earth, vermiculite, or other suitable absorbent. Label reclaimed spill material as flammable.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Vapors heavier than air, may travel considerable distance and ignite or explode.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Ventilation equipment must be explosion-proof.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Acetone	500 ppm TWA;750 ppm STEL	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA;
1,5-diphenylcarbohydrazide	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

Acetone: 750 ppm TWA; 1800 mg/m3 TWA
Acetone: 750 ppm TWA; 1800 mg/m3 TWA

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin:

Wear butyl rubber gloves, apron, and/or clothing.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

5000ppm-GMOVc;
20,000ppm-GMOVfb/SAF/SCBAF;
Escape- GMOV/SCBA.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless
Odor:	Characteristic odor
pH:	No information found.
Vapor Pressure:	181 mm Hg @68F
Vapor Density:	2.0
Evaporation Rate:	0.8 (CCl4=1)
Viscosity:	No information found.
Boiling Point:	133°F (56.11°C)
Freezing/Melting Point:	-138°F (-94.44°C)
Decomposition Temperature:	No information found.
Solubility in water:	Miscible.
Specific Gravity/Density:	0.8
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:

High temperatures, incompatible materials, ignition sources, excess heat.

Incompatibilities with Other Materials

Permonosulfuric acid, potassium hypobromite, bromine trifluoride, nitrosyl and nitryl perchlorate, hydrogen peroxides, bromoform, chloroform, nitric acid, sulfuric acid, sulfur dichloride, bromine, acetic acid, platinum, sodium hypoiodite, thiotriazyl perchlorate, hexachloroamine, thiodiglycol, trichloromelamine, chromium trioxide, chromic anhydride, potassium t-butoxide, potassium bichromate, chromyl chloride, acetyl chloride, acetyl bromide, bromine pentafluoride, permanganic acid, potassium dioxide, hydrogen peroxide/sulfuric acid mixes, ammonium hydroxide/silver oxide mixes, hydrogen peroxide/iodine/phosphorous mixes, silver nitrate, silver/nitric acid mix forms explosive compounds, strong oxidizing agents, alkali metals.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, formaldehyde.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 67-64-1: AL3150000.
CAS# 140-22-7: FF2750000.

LD50/LC50:

CAS# 67-64-1:
Inhalation, rat: LC50 =50100 mg/m3/8H
Oral, mouse: LD50 = 3 gm/kg
Oral, rabbit: LD50 = 5340 mg/kg
Oral, rat: LD50 = 5800 mg/kg
Skin, rabbit: LD50 = 20 gm/kg.
CAS# 140-22-7:
No information found.

Carcinogenicity:

CAS# 67-64-1
ACGIH: A4 - Not Classifiable as a Human Carcinogen
California: Not listed.
NIOSH: Not listed.
NTP: Not listed.
OSHA: Not listed.
IARC: Not listed.
CAS# 140-22-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Mild eye, mucous membrane and skin irritant and central nervous system depressant. Alcoholic beverages enhance effect, increasing exposure risk for persons with chronic respiratory or skin 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: Acetone solution

Hazard Class: 3

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UN Number: UN1090
Packing Group: PG II

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 67-64-1 is listed on the TSCA Inventory.
CAS# 140-22-7 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 67-64-1: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Acetone 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# 67-64-1 is listed on Canada's DSL List.
CAS# 140-22-7 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 67-64-1 is listed on Canada's Ingredient Disclosure List.
CAS# 140-22-7 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 21, 1998
Revision Date: July 23, 2007