

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Diphenylcarbazide, 0.5% in Acetone
Product code : LC13670

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet

LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 2 H225
Eye Irrit. 2A H319
STOT SE 3 H336

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, ventilating, lighting equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P261 - Avoid breathing mist, vapors, spray
P264 - Wash exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a POISON CENTER/doctor if you feel unwell
P337+P313 - If eye irritation persists: Get medical advice/attention
P235 - Keep cool
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to comply with local, state and federal regulations

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2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Acetone	(CAS No) 67-64-1	99.5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
1,5-Diphenylcarbazine	(CAS No) 140-22-7	0.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause drowsiness or dizziness.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Nausea. Vomiting. Dizziness. Headache.

4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Face-shield. Gloves.

Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, spray.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Avoid breathing mist, vapors, spray. Use only outdoors or in a well-ventilated area.
Hygiene measures : Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources., Ignition sources, Direct sunlight. Keep in fireproof place. Keep container tightly closed. Light sensitive.
Incompatible products : Strong oxidizers.
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diphenylcarbazine, 0.5% in Acetone		
ACGIH	Not applicable	
OSHA	Not applicable	
1,5-Diphenylcarbazine (140-22-7)		
ACGIH	Not applicable	
OSHA	Not applicable	
Acetone (67-64-1)		
ACGIH	ACGIH TWA (ppm)	500 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	2400 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Material should be handled in a laboratory hood whenever possible.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.

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Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless-orange;On exposure to light: discolours
Odor : Aromatic odour
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Solubility : Soluble in alcohols.
Water: Solubility in water of component(s) of the mixture :
• Acetone:
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture. Light sensitive.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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Acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)
ATE US (oral)	5800.000 mg/kg body weight
ATE US (dermal)	20000.000 mg/kg body weight
ATE US (gases)	30000.000 ppmV/4h
ATE US (vapors)	71.000 mg/l/4h
ATE US (dust, mist)	71.000 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause drowsiness or dizziness.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Nausea. Vomiting. Dizziness. Headache.

SECTION 12: Ecological information

12.1. Toxicity

Acetone (67-64-1)	
LC50 fish 1	6210 mg/l (96 h; Pimephales promelas; Nominal concentration)
EC50 Daphnia 1	8800 mg/l (48 h; Daphnia pulex)
LC50 fish 2	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)

12.2. Persistence and degradability

Diphenylcarbazine, 0.5% in Acetone	
Persistence and degradability	Not established.
1,5-Diphenylcarbazine (140-22-7)	
Persistence and degradability	Not established.
Acetone (67-64-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No test data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.20 g O ₂ /g substance
BOD (% of ThOD)	(20 day(s)) 0.872

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12.3. Bioaccumulative potential

Diphenylcarbazide, 0.5% in Acetone	
Bioaccumulative potential	Not established.
1,5-Diphenylcarbazide (140-22-7)	
Bioaccumulative potential	Not established.
Acetone (67-64-1)	
BCF fish 1	0.69 (Pisces)
BCF other aquatic organisms 1	3
Log Pow	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

Acetone (67-64-1)	
Surface tension	0.0237 N/m

12.5. Other adverse effects

Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.
Additional information	: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN1090 Acetone solution, 3, II
UN-No.(DOT)	: UN1090
Proper Shipping Name (DOT)	: Acetone solution
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid



Packing group (DOT)	: II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 202
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L

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DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

UN-No. (IMDG) : 1090
Proper Shipping Name (IMDG) : ACETONE
Class (IMDG) : 3 - Flammable liquids
Packing group (IMDG) : II - substances presenting medium danger

Air transport

UN-No.(IATA) : 1090
Proper Shipping Name (IATA) : Acetone
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Diphenylcarbazine, 0.5% in Acetone

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard
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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

1,5-Diphenylcarbazine (140-22-7)

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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Acetone (67-64-1)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
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15.2. International regulations

CANADA

Diphenylcarbazine, 0.5% in Acetone

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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1,5-Diphenylcarbazine (140-22-7)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Acetone (67-64-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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EU-Regulations

No additional information available

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Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

15.2.2. National regulations

1,5-Diphenylcarbazide (140-22-7)
Not listed on the Canadian IDL (Ingredient Disclosure List)
Acetone (67-64-1)
Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Other information : None.

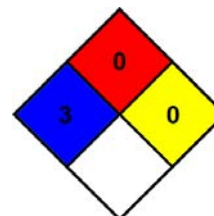
Full text of H-phrases: see section 16:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Personal Protection : H

SDS US (GHS HazCom 2012)

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