



DIPHENYL CARBAZIDE SOLUTION
(REAGENT FOR ARSENATE, Cd, Cr, Hg)

MATERIAL SAFETY DATA SHEET
SDS/MSDS

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

1.1 Product identifiers

Product name : Diphenyl Carbazide Solution (Reagent for arsenate, Cd, Cr, Hg)
Product Code : 826215

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi -110002
INDIA
Telephone : +91 11 49404040
Email : care@cdhfinechemical.com

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225
Eye irritation (Category 2A), H319
Germ Cell Mutagenicity (Category 1), H340
Reproductive toxicity (Category 1), H360
Specific target organ/systemic toxicity following single exposure (Category 1), H370
Specific target organ/systemic toxicity following repeated exposure (Category 1), H372

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H340 May cause genetic defects.
H360 May damage fertility or the unborn child.
H370 Causes damage to organs.

H372	Causes damage to organs through prolonged or repeated exposure.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and eye protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307 + P311	IF exposed: Call a POISON CENTER or physician.
P308 + P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P337 + P313	If eye irritation persists: Get medical attention.
P370 + P378	In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.
Supplemental Hazard Statements	none

2.3 Other hazards

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

SECTION 3: Composition/information on ingredients

3.1 Mixtures

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Formula	Molecular Weight	CAS No.	weight %
Ethyl Alcohol	CH ₃ CH ₂ OH	46.06 g/mol	67-17-5	94.05 %
Methyl Alcohol	CH ₃ OH	32.04 g/mol	67-56-1	4.70 %
Diphenylcarbazine	C ₁₂ H ₁₄ N ₄ CO	242.27 g/mol	140-22-7	1.25 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Not expected to require first aid. If necessary, remove to fresh air.

In case of skin contact

Take off immediately all contaminated clothing. Rinse skin with water. Results in drying and cracking which can lead to secondary infections and dermatitis.

In case of eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

If swallowed

Dilute immediately with water or milk. Induce vomiting. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Flammable liquid. Primarily toxic by ingestion. If ingested, give large quantity of water and induce vomiting. Call a physician. Contact may cause dryness and cracking of the skin. May cause irritation to the eyes. Wash areas of contact with plenty of water. May cause irritation of the respiratory system. **EYE CONTACT:** May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. **SKIN CONTACT:** Results in drying and cracking which can lead to secondary infections and dermatitis.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (Wash areas of contact with water).

SECTION 5: Firefighting measures**5.1 Extinguishing media**

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use water spray, dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Water spray can be used to dilute spills to non-flammable mixtures.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapor. Vapors can flow along surfaces to distant ignition source and flashback. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire. Explosion hazard when exposed to heat, flame or oxidizers.

5.3 Advice for firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

5.4 Further information

No data available

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Absorb with inert material (vermiculite, sand). Ventilate, if necessary, site of spillage well to evaporate remaining liquid and disperse vapor. Do not flush to sewer. Always comply with local, state, and federal regulations.

6.4 Reference to other sections

See section 8. Exposure controls/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 vapors. 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 in fireproof place. Keep container tightly closed.

Incompatible products: Strong oxidizers.

Incompatible materials: Sources of ignition, Direct sunlight, Heat sources.

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: Colourless to yellowish brown
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	Approximately 77°C - Approximately 77°C
g) Flash point	Approximately 15.5°C
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available

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|----|--|-------------------|
| o) | Partition coefficient: n-octanol/water | No data available |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |
| s) | Explosive properties | No data available |
| t) | Oxidizing properties | No data available |

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

10.4 Conditions to avoid

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed.

10.5 Incompatible materials

Oxidizers, platinum, Sodium, Potassium Dioxide, Bromine Pentafluoride, Acetyl Bromide, Acetyl Chloride, heat, sparks, open flame.

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

May cause genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity

No data available

Reproductive toxicity

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - single exposure

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration hazard

No data available

Additional Information

No data available

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects

Environmental precautions: Avoid release to the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information**14.1 UN number**

ADR/RID: - 1987

IMDG: - 1987

IATA: - 1987

14.2 UN proper shipping name

ADR/RID: ALCOHOLS, N.O.S. (ETHANOL, METHANOL)

IMDG: ALCOHOLS, N.O.S. (ETHANOL, METHANOL)

IATA: Alcohols, n.o.s. (Ethanol, Methanol)

14.3 Transport hazard class(es)

ADR/RID: - 3

IMDG: - 3

IATA: - 3

14.4 Packaging group

ADR/RID: - II

IMDG: - II

IATA: - II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: Yes

IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
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Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.