

CHAITANYA CHS, 2nd FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.
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MATERIAL SAFETY DATA SHEET (MSDS)

PHENYL HYDRAZINE (FOR SYNTHESIS)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : PHENYL HYDRAZINE (FOR SYNTHESIS)

Product code : P0158850000

Identification of the product : Phenylhydrazine
 CAS No: 100-63-0
 EC No :202-873-5
 Annex No :612-023-00-9

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Carc. Cat. 2; R45
 Muta. Cat. 3; R68
 T; R23/24/25-R48/23/24/25
 Xi; R36/38
 R43
 N; R50

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Germ cell mutagenicity - Category 2 - Warning (CLP : Muta. 2) H341
 Carcinogenicity - Category 1B - Danger (CLP : Carc. 1B) H350
 Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -
 Category 3 - Warning (CLP : STOT SE 3) H335
 Specific Target Organ Toxicity - Repeated exposure - Category 1 - Danger (CLP :
 STOT RE 1) H372

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
2. Hazards identification -DSD (continued)

	Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311
	Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317
	Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301
	Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315
	Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331
	Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319
Environmental hazards	: Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400

2.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: T : Toxic
 N : Dangerous for the environment

R Phrase(s)

: R45 : May cause cancer.
 R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
 R36/38 : Irritating to eyes and skin.
 R43 : May cause sensitization by skin contact.
 R48/23/24/25 : Toxic : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
 R68 : Possible risks of irreversible effects.
 R50 : Very toxic to aquatic organisms.

S Phrase(s)

: S53 : Avoid exposure - obtain special instructions before use.
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: Phenylhydrazine

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H301 : Toxic if swallowed.
 H311 : Toxic in contact with skin.
 H331 : Toxic if inhaled.
 H350 : May cause cancer.
 H341 : Suspected of causing genetic defects.
 H319 : Causes serious eye irritation.

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
2. Hazards identification -DSD (continued)

H315 : Causes skin irritation.
 H317 : May cause an allergic skin reaction.
 H335 : May cause respiratory irritation.
 H372 : Causes damage to organs through prolonged or repeated exposure.
 H400 : Very toxic to aquatic life.

Precautionary statements
• General

: P201: Obtain special instructions before use.

• Prevention

: P280: Wear protective gloves, protective clothing, eye protection, face protection.
 P271: Use only outdoors or in a well-ventilated area.
 P260: Do not breathe dust, fume, gas, mist, vapours, spray.
 P273: Avoid release to the environment.
 P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P272: Contaminated work clothing should not be allowed out of the workplace.

• Response

: P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.
 P302+P352: IF ON SKIN : Wash with plenty of soap and water.
 P308+P313: If exposed or concerned : get medical advice.
 P391: Collect spillage.
 P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
 P333+P313: If skin irritation or rash occurs : Get medical advice.
 P363: Wash contaminated clothing before reuse.
 P314: Get medical advice if you feel unwell.
 P361: Remove immediately all contaminated clothing.

• Storage

: P403+P233: Store in well-ventilated place. Keep container tightly closed.
 P405: Store locked up.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
 P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special labelling

: Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)

Contains

: Phenylhydrazine

2.3. Other hazards
Other hazards

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

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MATERIAL SAFETY DATA SHEET (MSDS)

PHENYL HYDRAZINE (FOR SYNTHESIS)

3. Composition/information on ingredients

Substance / Preparation : Phenylhydrazine

EC No :202-873-5
 Annex No :612-023-00-9
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Phenylhydrazine	100 %	100-63-0	202-873-5	612-023-00-9	----	Carc. Cat. 2; R45 Muta. Cat. 3; R68 T; R23/24/25-48/23/24/25 Xi; R36/38 R43 N; R50 ----- Carc. 1B _ H350 Acute Tox. 3 (skin) _ H311 Acute Tox. 3 (inhal) _ H331 Acute Tox. 3 (oral) _ H301 STOT RE 1 _ H372 Muta. 2 _ H341 Eye irrit 2 _ H319 Skin Irrit. 2 _ H315 STOT SE 3 _ H335 Skin Sens. 1 _ H317 Aquatic Acute 1 _ H400

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

- Inhalation** : Call a POISON CENTER or doctor if you feel unwell. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs : Get medical advice. Wash contaminated clothing before reuse. Specific treatment (see on this label).
- Eye contact** : Get medical advice. If eye irritation persists : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
- Ingestion** : Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

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

- Symptoms relating to use** : May cause cancer.
 Suspected of causing genetic defects.
 Causes damage to organs through prolonged or repeated exposure.
 Repeated exposure to this material can result in absorption through skin causing significant health hazard.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction. May cause respiratory irritation.
 Danger of serious damage to health by prolonged exposure through inhalation.
 Swallowing a small quantity of this material will result in serious health hazard.

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
4. First aid measures (continued)
4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting 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.
Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
 Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
 Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
6. Accidental release measures (continued)
6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling	: Avoid breathing dust, fume, gas, mist, vapours, spray. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray. Use personal protective equipment as required. Obtain special instructions before use. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.
Technical protective measures	: Provide good ventilation in process area to prevent formation of vapour.
Special precautions	: Avoid breathing dust, fume, gas, mist, vapours, spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s)	: None.
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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.
• Hand protection	: Wear protective gloves.
• Skin protection	: Wear suitable protective clothing.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits	: No data available.
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MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Solid.
Colour	: Pale yellow
Odour	: Faint aromatic odor
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: 18 - 21 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: N/A
Flammability (solid, gas)	: N/A
Flash point [°C]	: 89 °C
Boiling point [°C]	: 238 - 241 °C
Initial boiling point [°C]	: 238°C
Final boiling point [°C]	: 241 °C
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: 1 mm Hg @ 71.80C
Vapour density	: 3,7
Density [g/cm3]	: 1,098
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Slightly soluble in
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm2/s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: 1,10%
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
10. Stability and reactivity (continued)

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- Inhalation : Toxic if inhaled.
- Dermal : Toxic in contact with skin.
- Ingestion : Toxic if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Causes serious eye irritation.
 Causes skin irritation.
 May cause respiratory irritation.

Sensitization : May cause an allergic skin reaction.

Mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Based on available data, the classification criteria are not met.

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
12. Ecological information
12.1. Toxicity

Toxicity information : Very toxic to aquatic life.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil 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.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Hazardous waste due to toxicity.

14. Transport information
14.1. Land transport (ADR-RID)

Proper shipping name : PHENYLHYDRAZINE

UN N° : 2572

H.I. nr : 60

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
14. Transport information (continued)

ADR - Class : 6.1
 Labelling - Transport : 6.1 : Toxic substances.



ADR - Classification code : T1
 ADR - Group : II
 ADR - Packing instructions : P001
 ADR - Limited Quantity : 100 ML
 ADR - Tunnel code



: D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : PHENYLHYDRAZINE
 UN N° : 2572
 IMO-IMDG - Class or division : 6.1 : Toxic substances.
 IMO-IMDG - Packing group : II
 IMO-IMDG - Packing instructions : P001
 IMO-IMDG - Limited quantities : 100 ml
 IMO-IMDG - Marine pollution : Yes
 EMS-Nr : F-A S-A

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : PHENYLHYDRAZINE
 UN N° : 2572
 IATA - Class or division : 6.1 : Toxic substances.
 IATA - Packing group : II
 IATA - Passenger and Cargo Aircraft : ALLOWED
 - Passenger and Cargo - Packing : 654
 instruction
 - Passenger and Cargo - Maximum : 5 L
 Quantity/Packing
 IATA - Cargo only : ALLOWED
 - Cargo only - Packing instruction : 662

MATERIAL SAFETY DATA SHEET (MSDS)
PHENYL HYDRAZINE (FOR SYNTHESIS)
14. Transport information (continued)

- Cargo only - Maximum Quantity/ : 60 L
 Packing
 IATA - Limited Quantities : 1 L
 ERG-Nr : 6L

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII : With the exception of those listed below:
 The components of this product are not subject to restrictions.
 Annex XVII
REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

16. Other information

Revision : Revision - See : *

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.
 vPvB: very persistent and very bioaccumulative

Sources of key data used : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

List of relevant R phrases (heading 3) : R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
 R36/38 : Irritating to eyes and skin.
 R43 : May cause sensitization by skin contact.
 R45 : May cause cancer.
 R48/23/24/25 : Toxic : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
 R50 : Very toxic to aquatic organisms.
 R68 : Possible risks of irreversible effects.

List of full text of H-statements in section 3 : H301 : Toxic if swallowed.
 H311 : Toxic in contact with skin.
 H315 : Causes skin irritation.
 H317 : May cause an allergic skin reaction.
 H319 : Causes serious eye irritation.
 H331 : Toxic if inhaled.
 H335 : May cause respiratory irritation.
 H341 : Suspected of causing genetic defects.

MATERIAL SAFETY DATA SHEET (MSDS)

PHENYL HYDRAZINE (FOR SYNTHESIS)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
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