



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

**Product Name :** Phenyl hydrazine hydrochloride

**Cat No.:** A14645

**CAS No. :** 59-88-1

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

**Recommended uses :** Laboratory chemicals

**Uses advised against:** Food, drug, pesticide or biocidal product use.

#### 1.3 Details of the supplier of the safety data sheet

**Company :** Krishna Solvechem Limited.  
B/503, Sahayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.

**Telephone :** +91-22-6123 0222

**Email :** exports@kscl.co.in

#### 1.4 Emergency telephone number

**Emergency Phone :** +91-8657457330

### SECTION 2: Hazards identification

#### 2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral, dermal and inhalation toxicity	(Category 3)
Skin Corrosion/Irritation	(Category 2)
Serious Eye Damage/Eye Irritation	(Category 2)
Skin sensitization	(Category 1)
Germ cell Mutagenicity and Carcinogenicity	(Category 2)
Specific target organ toxicity (repeated exposure)	(Category 1)
Target Organs - Liver, kidney, blood	

#### 2.2 Label elements

**Pictogram :**

**Signal word**

**Hazard statement (s)**

Danger

Causes damage to organs through prolonged or repeated exposure

Toxic if swallowed, in contact with skin or if inhaled

Suspected of causing genetic defects

Suspected of causing cancer



**Precautionary  
statement (s)**

**Prevention**

Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction

Obtain special instruction before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not eat, drink or smoke when using this product  
Contaminated work clothing should not be allowed out of the workplace  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

**Inhalation :**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

**IF ON SKIN (or hair):**

If skin irritation occurs: Get medical advice/attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse

**Eyes:**

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 advice/attention

**Ingestion:**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth

**Storage:**

Store locked up Store in a well-ventilated place.  
Keep container tightly closed



<b>Hazards not otherwise classified (HNOC)</b>	<p><b>Disposal:</b> Dispose of contents/container to an approved waste disposal plant</p> <p>Very toxic to aquatic life. WARNING : Cancer</p>
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**SECTION 3: Composition / information on ingredients**

**3.1**

Component	CAS-No	Weight %
Phenylhydrazine hydrochloride	59-88-1	>95

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

<b>If inhalation :</b>	Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	Do NOT induce vomiting. Call a physician or poison control center immediately..
<b>4.2 Most important symptoms and effects :</b>	May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
<b>4.3 Notes to Physician :</b>	Treat symptomatically

**SECTION 5: Firefighting effects**

**5.1 Extinguishing media**

<b>Suitable extinguishing media :</b>	Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media:</b>	No information available
<b>5.2 Flash Point :</b>	Not applicable
<b>Method :</b>	No information available



<b>Autoignition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available
<b>Specific Hazards Arising from the Chemical :</b>	Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses.
<b>Hazardous Combustion Products :</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Hydrogen chloride gas, Nitrogen oxides (NO <sub>x</sub> )

<b>5.4 Protective Equipment and Precautions for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
<b><u>NFPA:</u></b>	<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
	3	1	1	N/A

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid dust formation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.
- 6.2 Environmental precautions**  
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
- 6.3 Methods and materials for containment and cleaning up**  
Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**  
Use only under a chemical fume hood. Wear personal protective equipment/face protection. Avoid dust formation. Do not breathe (dust, vapor, mist, gas). Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Handle under inert gas, protect from moisture



## 7.2 Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Store under an inert atmosphere.

## SECTION 8: Exposure controls/personal protection

### 8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Engineering Measures

Use only under a chemical fume. Ensure that eyewash stations and safety showers are close to the workstation location.

### 8.2 Exposure controls

#### Personal protective equipment -

##### Eye / Face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Off-white powder solid
b) Odour	Odorless
c) Odour Threshold	No information available
d) pH	No information available
e) Melting point / freezing point	250 - 254 °C / 482 - 489.2 °F
f) Initial boiling point and	No information available



<b>boiling range</b>	
<b>g) Flash point</b>	Not applicable
<b>h) Evaporation rate</b>	No information available
<b>i) Flammability (solid, gas)</b>	Not applicable
<b>j) Upper/lower flammability or explosive limits</b>	No data available No data available
<b>k) Vapour pressure</b>	No information available
<b>l) Vapour density</b>	No data available
<b>m) Specific Gravity</b>	No information available
<b>n) Solubility</b>	No information available
<b>o) Partition coefficient: n octanol/water</b>	No data available
<b>p) Auto-ignition temperature</b>	No information available
<b>q) Decomposition temperature</b>	> 245°C.
<b>r) Viscosity</b>	Not applicable
<b>s) Molecular formula</b>	C6 H8 N2 H Cl
<b>t) Molecular Weight</b>	144.61

### SECTION 10: Stability and Reactivity

<b>10.1 Reactive Hazard :</b>	Yes
<b>10.2 Chemical stability :</b>	Light sensitive. Air sensitive
<b>10.3 Possibility of hazardous reactions :</b>	None under normal processing.
<b>10.4 Conditions to avoid :</b>	Avoid dust formation. Exposure to air. Exposure to light. Incompatible products. Temperatures above 90°C.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents, bases
<b>10.6 Hazardous decomposition products :</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Hydrogen chloride gas, Nitrogen oxides (NO <sub>x</sub> )
<b>10.7 Hazardous Polymerization</b>	No information available



## SECTION 11: Toxicological information

### 11.1

#### Information on toxicological effects

#### Acute toxicity:

#### Product Information:

#### Component Information

#### Toxicologically Synergistic Products

No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Irritation :

Irritating to eyes and skin

#### Sensitization:

May cause sensitization by skin contact

#### Carcinogenicity :

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Phenylhydrazine hydrochloride	59-88-1	Not listed	Not listed	Not listed	Not listed	Not listed

#### Mutagenic Effects:

Possible risk of irreversible effects

#### Reproductive Effects:

No information available.

#### Developmental Effects :

No information available.

#### Teratogenicity:

No information available.

#### STOT - single exposure :

None known

#### STOT - repeated exposure:

Liver kidney blood

#### Aspiration hazard :

No information available.

#### Symptoms / effects, both acute and delayed:

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

#### Endocrine Disruptor Information :

No information available

#### Other Adverse Effects :

The toxicological properties have not been fully investigated.



## SECTION 12: Ecological information

### 12.1

#### Ecotoxicity:

Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

**12.2 Persistence and degradability:** Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available

**12.3 Mobility:** Will likely be mobile in the environment due to its water solubility. Log pow : -2.27

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### 14.1 UN number :

DOT : UN2811      TDG : UN2811  
IATA : UN2811      IMDG : UN2811

### 14.2 UN proper shipping name

**DOT :** TOXIC SOLIDS,ORGANIC, N. O. S.      **TDG :** TOXIC SOLIDS, ORGANIC, N. O. S.  
**IMDG :** TOXIC SOLID, ORGANIC, N. O. S.      **IMDG :** TOXIC SOLID, ORGANIC, N. O. S.

**14.3 Transport hazard class(es)**      ADR/RID: 3      IMDG: 3      IATA: 3

**14.4 Packaging group:**      ADR/RID: II      IMDG: II      IATA: II

## SECTION 15: Regulatory information

### 15.1 United states of America Inventory:

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA - EPA Regulatory Flags
Phenylhydrazine hydrochloride	59-88-1	X	ACTIVE	-

**Legend:**





**TSCA - Toxic Substances Control Act, (40 CFR Part 710)**

X - Listed

'-' - Not Listed

**TSCA 12(b) - Notices of Export**                      Not applicable

**International Inventories:**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Phenylhydrazine hydrochloride	74-96-4	X	-	200-444-7	X	-	X	X	KE-28380

**U.S. Federal Regulations**

**SARA 313**

Not applicable

**SARA 311/312 Hazard Categories**

See section 2 for more information

**CWA (Clean Water Act)**

Not applicable

**Clean Air Act**

Not applicable

**OSHA - Occupational Safety and Health Administration**

Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Phenylhydrazine hydrochloride	-	1000 lb

**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Phenylhydrazine hydrochloride	59-88-1	Carcinogen	1.4 µg/day	Carcinogen

**15.2 U.S. State Right-to-Know Regulations:**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Phenylhydrazine hydrochloride	X	X	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ):     N



DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** - This product does not contain the any DHS Chemicals.

**Other International Regulations**

**Mexico – Grade** No information available

**SECTION 16: Other information**

**16.1 Prepared By:** Regulatory affairs  
Krishna Solvechem  
Limited  
**Email:** exports@kscl.co.in  
**Creation Date:** 23-Mar-2012  
**Revision Date:** 19-Jun-2023  
**Print Date:** 19-Jun-2023  
**Revision Summary:** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C FR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**16.2 Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.