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| <b>Hydrazine Dihydrochloride<br/>CAS No 5341-61-7</b> | <b>MATERIAL SAFETY DATA SHEET<br/>SDS/MSDS</b> |
|---|--|

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

- 1.1 Product identifiers**  
Product name : **Hydrazine Dihydrochloride**  
CAS-No. : 5341-61-7
- 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-10002  
INDIA  
Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto: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**  
Carcinogenicity (Category 1B), H350  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 3), H311  
Acute toxicity, Oral (Category 3), H301  
Skin sensitisation (Category 1), H317  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

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 : Danger  
Hazard statement(s)  
H301 : Toxic if swallowed.  
H311 : Toxic in contact with skin.

|                                   |  |
|-----------------------------------|--|
| H317                              | May cause an allergic skin reaction.                                 |
| H331                              | Toxic if inhaled.  |
| H350                              | May cause cancer.  |
| H410                              | Very toxic to aquatic life with long lasting effects.                |
| Precautionary statement(s)        |  |
| P201                              | Obtain special instructions before use.                              |
| P261                              | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.               |
| P273                              | Avoid release to the environment.                                    |
| P280                              | Wear protective gloves/ protective clothing.                         |
| P301 + P310                       | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. |
| P311                              | Call a POISON CENTER or doctor/ physician.                           |
| Supplemental Hazard Statements    | none   |
| Restricted to professional users. |  |

### 2.3 Other hazards - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                     |   |                                      |
|---------------------|---|--------------------------------------|
| Formula             | : | H <sub>4</sub> N <sub>2</sub> · 2HCl |
| Molecular weight    | : | 104,97 g/mol                         |
| CAS-No.             | : | 5341-61-7                            |
| EC-No.              | : | 226-283-2                            |
| Index-No.           | : | 007-014-00-6                         |
| Registration number | : | 01-2119510878-31-XXXX                |

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

| Component                        | Classification                           | Concentration |
|----------------------------------|--|---------------|
| <b>Hydrazine dihydrochloride</b> |  |               |
| CAS-No.                          | 5341-61-7                                | <= 100 %      |
| EC-No.                           | 226-283-2                                |               |
| Index-No.                        | 007-014-00-6                             |               |
| Registration number              | 01-2119510878-31-XXXX                    |               |
|                                  | H301, H331, H311, H317, H350, H400, H410 |               |
|                                  | M-Factor - Aquatic Acute: 10             |               |

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

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

#### **5.4 Further information**

No data available

### **SECTION 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### **6.4 Reference to other sections**

For disposal see section 13.

### **SECTION 7: Handling and storage**

#### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Hygroscopic. Store under inert gas. Moisture sensitive. Handle under inert gas. Protect from moisture.

#### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

### **SECTION 8: Exposure controls/personal protection**

#### **8.1 Control parameters**

##### **Components with workplace control parameters**

#### **8.2 Exposure controls**

##### **Appropriate engineering controls**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses 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

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains . Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|   |                             |
|---|-----------------------------|
| a) Appearance                                   | Form: solid                 |
| b) Odour  | No data available           |
| c) Odour Threshold                              | No data available           |
| d) pH   | No data available           |
| e) Melting point/freezing point                 | Melting point/range: 200 °C |
| f) Initial boiling point and boiling range      | No data available           |
| g) Flash point                                  | Not applicable              |
| 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                             | 1,42 g/mL at 25 °C          |
| n) Water solubility                             | No data available           |
| 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

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents, Bases

### 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## 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

No data available

#### Respiratory or skin sensitisation

May cause sensitisation by skin contact.

#### Germ cell mutagenicity

Hamster  
ovary  
Sister chromatid exchange

#### Carcinogenicity

Possible human carcinogen

#### Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

No data available

#### Specific target organ toxicity - repeated exposure

No data available

#### Aspiration hazard

No data available

#### Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Cough, Shortness of breath, Headache, Nausea, Vomiting, Central nervous system depression, May cause convulsions., Liver injury may occur., Kidney injury may occur., Damage to the lungs.

## 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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Very toxic to aquatic life.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 2811

IMDG: 2811

IATA: 2811

### 14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Hydrazine dihydrochloride)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Hydrazine dihydrochloride)

IATA: Toxic solid, organic, n.o.s. (Hydrazine dihydrochloride)

### 14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

Hydrazine dihydrochloride                      CAS-No.: 5341-61-7  
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)  
Carcinogens: category 1B  
Restricted to professional users.  
See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

### 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.

|      |   |
|------|---|
| H301 | Toxic if swallowed.                                   |
| H311 | Toxic in contact with skin.                           |
| H317 | May cause an allergic skin reaction.                  |
| H331 | Toxic if inhaled.                                     |
| H350 | May cause cancer.                                     |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |

### 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](http://www.cdhfinechemical.com) for additional terms and conditions of sale.