1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Desipramine hydrochloride
Product Number : D3900
Brand : Sigma
Product Use : For laboratory research purposes.
Supplier : Sigma-Aldrich Canada Co.
2149 Winston Park Drive
OAKVILLE ON L6H 6J8 CANADA
Telephone : +1 9058299500
Fax : +1 9058299292
Emergency Phone # (For both supplier and manufacturer) : +1-703-527-3887 (CHEMTREC)
Preparation Information : Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

Manufactur er : Sigma-Aldrich Corporation
3050 Spruce St.
St. Louis, Missouri 63103 USA

2. HAZARDS IDENTIFICATION

Emergency Overview

Target Organs
Central nervous system, Heart

WHMIS Classification
D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant
Moderate respiratory irritant
Moderate eye irritant

GHS Classification
Acute toxicity, Oral (Category 4)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Respiratory sensitisation (Category 1)
Skin sensitisation (Category 1)
Specific target organ toxicity - single exposure (Category 3)

GHS Label organ toxicity, including precautionary statements
Pictogram

Signal word Danger
Hazard statement(s)
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
Precautionary statement(s)
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 0
Physical hazards: 0

Potential Health Effects
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin Harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion Harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
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<th>Formula:</th>
<th>Molecular weight:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>C₁₈H₂₂N₂·HCl</td>
<td>302.84 g/mol</td>
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<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>58-28-6</td>
<td>200-373-1</td>
<td>-</td>
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</table>

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

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

Special protective equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas

Explosion data - sensitivity to mechanical impact
No data available

Explosion data - sensitivity to static discharge
No data available
6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental precautions**
Do not let product enter drains.

**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.

7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature 2 - 8 °C
Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal protective equipment**

**Respiratory protection**
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

**Eye 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 and 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.

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Specific engineering controls**
Use mechanical exhaust or laboratory fumehood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

<table>
<thead>
<tr>
<th>Form</th>
<th>powder</th>
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</thead>
<tbody>
<tr>
<td>Colour</td>
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**Safety data**

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<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Melting point/range: 214 - 218 °C (417 - 424 °F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
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</table>
10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
Avoid moisture.

Materials to avoid
Strong oxidizing agents

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas
Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - Rat - 871 mg/kg

Inhalation LC50
No data available

Dermal LD50
No data available

Other information on acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available
May cause allergic respiratory and skin reactions

**Germ cell mutagenicity**
No data available

**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Reproductive toxicity**
Reproductive toxicity - Rat - Subcutaneous
Effects on Newborn: Behavioral.

No data available

**Teratogenicity**
Developmental Toxicity - Mouse - Subcutaneous
Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Central nervous system.

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
No data available

**Aspiration hazard**
No data available

**Potential health effects**
- **Inhalation**: May be harmful if inhaled. Causes respiratory tract irritation.
- **Ingestion**: Harmful if swallowed.
- **Skin**: Harmful if absorbed through skin. Causes skin irritation.
- **Eyes**: Causes eye irritation.

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

**Synergistic effects**
No data available

**Additional Information**
RTECS: HO0525000

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**12. ECOLOGICAL INFORMATION**

**Toxicity**
No data available

**Persistence and degradability**
No data available

**Bioaccumulative potential**
No data available

**Mobility in soil**
No data available

**PBT and vPvB assessment**
No data available

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Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste
disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

WHMIS Classification

D2B   Toxic Material Causing Other Toxic Effects
      Moderate skin irritant
      Moderate respiratory irritant
      Moderate eye irritant

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the
MSDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

Further information
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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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or
from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for
additional terms and conditions of sale.