1. PRODUCT AND COMPANY IDENTIFICATION

   Chemical Name  2-Hydroxy Desipramine-d3

   Catalogue #    H936502
   Company        Toronto Research Chemicals
                  2 Brisbane Road
                  Toronto, ON   M3J 2J8
                  CANADA

   Telephone      +14166659696
   FAX            +14166654439
   Emergency#     +14166659696
   Email          orders@trc-canada.com

2. HAZARDS IDENTIFICATION

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

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

   Target Organs
   Central nervous system, heart.

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

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

   GHS Label elements, including precautionary statements
   Signal word       Danger
   Hazard statements
   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.

   Toronto Research Chemicals - H936502
Precautionary statements
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.

GHS Label Pictograms

3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: $\text{C}_{18}\text{H}_{19}\text{D}_3\text{N}_2\text{O}$

Molecular Weight: 285.40

CAS Registry #:

EC#:

Synonyms:

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. FIRE FIGHTING MEASURES

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

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust or aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions
Do not let product enter drains.

Toronto Research Chemicals - H936502
7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Store at -20°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

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).

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 fume hood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Tan to brown solid

Safety data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/A</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>151-153°C</td>
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<tr>
<td>Flash point</td>
<td>N/A</td>
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<tr>
<td>Lower explosion limit</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Water solubility</td>
<td>N/A</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Materials to avoid
Strong oxidizing agents.

Conditions to avoid
No data available

Hazardous decomposition products
Hazardous decomposition products formed under fire

Toronto Research Chemicals - H936502
11. TOXICOLOGICAL INFORMATION

Acute toxicity: no data available
Irritation and corrosion: no data available
Sensitization: Skin/respiratory sensitizer.

Reproductive toxicity/Teratogenicity: no data available
Additional Information: RTECS: no data available

Carcinogenicity: IARC: Not classified as a carcinogen by IARC.

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

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

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
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)/IMDG/IATA:
not dangerous goods

15. REGULATORY INFORMATION

DSL Status:
Product is not on the Canadian DSL or NDSL list.

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

16. OTHER INFORMATION

Further information:
Copyright 2010 Toronto Research Chemicals Inc. Copies may be made for internal use only. The above information is believed to be correct to the best of our knowledge, but is not to be deemed as all-inclusive and is to be only used as a guide. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Please take all due care when handling this product.

 Toronto Research Chemicals - H936502