Inderal Solid Products

1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Inderal Solid Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Name</td>
<td>Not available</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Synonyms</td>
<td>Inderal LA Long-Acting Capsules, Inderal Tablets, Inderide, Propranolol Hydrochloride</td>
</tr>
<tr>
<td>Product Use</td>
<td>Pharmaceutical product</td>
</tr>
<tr>
<td>Classification</td>
<td>Cardiovascular Drug, Beta-adrenergic</td>
</tr>
<tr>
<td>Supplier</td>
<td>Wyeth</td>
</tr>
<tr>
<td></td>
<td>P.O. Box 8299</td>
</tr>
<tr>
<td></td>
<td>Philadelphia, PA 19101 USA.</td>
</tr>
<tr>
<td></td>
<td>Telephone: 1-610-688-4400</td>
</tr>
<tr>
<td>Emergency Telephone Number</td>
<td>Chemtrec USA, Puerto Rico, Canada 1-800-424-9300</td>
</tr>
<tr>
<td></td>
<td>Chemtrec International 1-703-527-3887</td>
</tr>
</tbody>
</table>

2. HAZARDS IDENTIFICATION

**Emergency Overview**
This contains an active pharmaceutical ingredient that can affect body functions; handle with caution.

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Pharmaceutical Tablet or Capsule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Potential Physical Hazards**
Powders and solids are presumed to be combustible.

**Potential Health Effects**

<table>
<thead>
<tr>
<th>Eyes</th>
<th>May cause eye irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>May cause skin irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of respiratory tract.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>The most common effects may include low blood pressure/hypotension, low heart rate, lightheadedness, dizziness, paresthesia of hands, thrombocytopenic purpura, insomnia, lassitude, weakness, fatigue, catatonia, visual disturbances, hallucinations, vivid dreams, disorientation for time and place, short-term memory loss, emotional lability, and slightly clouded sensorium. May cause harm to the unborn child. Please see Patient Package Insert for further information.</td>
</tr>
<tr>
<td>Therapeutic Target Organ(s)</td>
<td>Cardiovascular system, Kidneys.</td>
</tr>
</tbody>
</table>

| Potential Environmental Effects | There is no known ecological information for this product. |

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Preparation Date 30-Nov-2006
Revision Date 01-Apr-2008
Revision Number 1
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Common Name</th>
<th>CAS-No</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochlorothiazide</td>
<td>58-93-5</td>
<td>0 - 25 mg/tablet or capsule</td>
</tr>
<tr>
<td>Propranolol Hydrochloride</td>
<td>318-98-9</td>
<td>10 - 160 mg/tablet or capsule</td>
</tr>
<tr>
<td>Inactive Ingredients</td>
<td>Not applicable</td>
<td>Remainder</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eye Contact**
In the case of contact with eyes, rinse immediately with plenty of water for 15 minutes and seek medical advice.

**Skin Contact**
Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

**Inhalation**
Move to fresh air. Artificial respiration and/or oxygen may be necessary. If symptoms persist, call a physician.

**Ingestion**
If symptoms persist, call a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

**Flammable Properties**
Presumed to be a combustible particulate solid.

**Extinguishing Media**

<table>
<thead>
<tr>
<th>Suitable Extinguishing Media</th>
<th>Unsuitable Extinguishing Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use water spray, foam, dry chemical or carbon dioxide.</td>
<td>Do NOT use water jet.</td>
</tr>
</tbody>
</table>

**Fire Fighting**
Evacuate area and fight fire from a safe distance. Cool closed containers exposed to fire with water spray. In the event of fire and/or explosion do not breathe fumes.

**Hazardous Combustion Products**
Carbon oxides, nitrogen oxides.

**Protective Equipment and Precautions for Firefighters**
In the event of fire, wear self-contained breathing apparatus and special protective equipment for fire fighters.

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**
Refer to protective measures listed in Sections 7 and 8.

**Environmental Precautions**
Prevent product from entering drains. Local authorities should be advised if a significant spill cannot be contained.

**Methods for Containment**
Not available

**Methods for Cleaning up**
Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly. Avoid formation of dust and aerosols.
7. HANDLING AND STORAGE

Handling
For personal protection see Section 8. Handle in accordance with good industrial hygiene and safety practice. Skin should be washed after contact. Avoid formation of dust and aerosols.

Storage
No special safety precautions required. Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Exposure Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochlorothiazide</td>
<td>250 mcg/m³</td>
</tr>
<tr>
<td>Propranolol Hydrochloride</td>
<td>50 mcg/m³</td>
</tr>
</tbody>
</table>

Engineering Controls
Apply technical measures to comply with the occupational exposure guideline. Local exhaust ventilation is needed for limited open handling or where aerosols may be generated.

Personal Protective Equipment

| Eye/face Protection          | Provide eye protection based on risk assessment. |
| Skin Protection              | Wear nitrile or latex gloves. Wear protective garment. |
| Respiratory Protection       | Base respirator selection on a risk assessment. |

General Hygiene Considerations
When using, do not eat, drink or smoke. General industrial hygiene practice. Wash hands before breaks and at the end of workday.

Other
Limit access to only personnel trained in the safe handling of this material. Consult a health and safety professional for specific PPE, respirator, and risk assessment guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Specific Gravity</th>
<th>Solubility</th>
<th>Partition Coefficient (n-octanol/water)</th>
<th>Boiling Point</th>
<th>Flash Point</th>
<th>Melting Point</th>
<th>Flammability Limits in Air</th>
<th>Explosion Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical Tablet or Capsule</td>
<td>Solid</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not available</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not available</td>
<td>Upper Not applicable</td>
<td>Upper Not applicable</td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td>Odor</td>
<td>Water Solubility</td>
<td>Evaporation Rate</td>
<td>Vapor Pressure</td>
<td>Autoignition Temperature</td>
<td>Method</td>
<td>Lower Not applicable</td>
<td>Lower Not applicable</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
<td>Odor</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>None</td>
<td>Lower Not applicable</td>
<td>Lower Not applicable</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Chemical Stability
Stable at room temperature.

Conditions to Avoid
No data available

Materials to Avoid
No materials to be especially mentioned.

Hazardous Decomposition Products
None under normal use.

Possibility of Hazardous Reactions
None under normal use.

11. TOXICOLOGICAL INFORMATION

The following effects are based on the Active Pharmaceutical Ingredient.

Acute Toxicity

Hydrochlorothiazide

LD50 Oral
1175 mg/kg rats
2750 mg/kg mice

Acute Dermal Irritation
Not applicable

Primary Eye Irritation
Not applicable

Sensitization
Not applicable

Propranolol Hydrochloride

LD50 Oral
466 mg/kg rats

Acute Dermal Irritation
Not applicable

Primary Eye Irritation
Not applicable

Sensitization
Not applicable

Multiple Dose Toxicity

Hydrochlorothiazide

No Toxicologic Effect
See Carcinogenicity

Dose/Species/Study Length:

Propranolol Hydrochloride

No Toxicologic Effect
See below

Dose/Species/Study Length:

Maximum Tolerated Dose (MTD), Oral

Hydrochlorothiazide

Carcinogenicity
Under the conditions of the National Toxicology Program (NTP) studies, there was no evidence of Carcinogenicity in rats or female mice. There was equivocal evidence of hepatocarcinogenicity in male mice.

Genetic Toxicity
Non genotoxic, based on a weight of evidence, but some assays have shown some activity. No evidence of mutagenicity was observed in a battery of in vitro and in vivo assays.

Reproductive Toxicity
Did not show reproductive toxicity effects in mice or rats.

Developmental Toxicity
No teratogenic effects were observed in mice and rats.

Propranolol Hydrochloride
12. ECOLOGICAL INFORMATION

The following effects are based on the Active Pharmaceutical Ingredient.

Chemical Fate Information
Not available

Ecotoxicity
Not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method
Dispose of in accordance with local and national regulations.

14. TRANSPORT INFORMATION

Transport Information
This material is not classified as hazardous for transport.

- U.S. Department of Transport (DOT) Not regulated
- Canadian Transport of Dangerous Goods (TDG) Not regulated
- International Civil Aviation Organization (ICAO) Not regulated
- International Air Transport Association (IATA) Not regulated
- International Maritime Dangerous Goods (IMDG)/International Maritime Organization (IMO) Not regulated
- Transport of Dangerous Goods by Rail (RID) Not regulated
- Transport of Dangerous Goods by Road (ADR) Not regulated
- Transportation of Dangerous Goods via Inland Waterways (ADN) Not regulated

15. REGULATORY INFORMATION

USA

Federal Regulations

OSHA Regulatory Status
This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)
SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization
- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

This product does not contain any HAPs.

State Regulations
California Proposition 65
This product does not contain any Proposition 65 chemicals.

Canada
Not classified

WHMIS Hazard Class
Non-controlled

European Union
In accordance with EC directives or respective national laws, the product does not need to be classified nor labeled.

16. OTHER INFORMATION

Prepared By
Wyeth Department of Environment, Health & Safety

Format
This MSDS was prepared in accordance with ANSI Z400.1-2004.

List of References
Product Package Insert

Revision Summary
Changes to Section 2

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End of MSDS