Section 1 - Product and Company Information

Product Name: PRAZOSIN HYDROCHLORIDE
Product Number: P7791
Brand: SIGMA
Company: Sigma-Aldrich Canada, Ltd
Address: 2149 Winston Park Drive
          Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Fax: 9058299292
Emergency Phone: 800-424-9300

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRAZOSIN HYDROCHLORIDE</td>
<td>19237-84-4</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formula</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19H21N5O4 · HCl</td>
<td>1-(4-Amino-6,7-dimethoxy-2-quinazolinyl)-4-(2-furalcarbonyl)piperazine hydrochloride *</td>
</tr>
<tr>
<td></td>
<td>1-(4-Amino-6,7-dimethoxy-2-quinazolinyl)-4-(2-furanyl)piperazine monohydrochloride * CP-12299-1 *</td>
</tr>
<tr>
<td></td>
<td>Deprazolin * Furazosin hydrochloride *</td>
</tr>
<tr>
<td></td>
<td>2-(4-(2-Furoyl)piperazin-1-yl)-4-amino-6,7-dimethoxyquinazoline hydrochloride * Hypovase *</td>
</tr>
<tr>
<td></td>
<td>Hypovasole * Minipress * Peripress * Piperazine, 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-(2-furoyl)-, monohydrochloride * Pratsiol * Prazosin clorhidrato (Spanish) * Prazosin hydrochloride * Sinetens</td>
</tr>
</tbody>
</table>

RTECS Number: VA1350000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Harmful.
Harmful if swallowed. Possible risk of impaired fertility.
Irritating to eyes, respiratory system and skin.
Target organ(s): Vascular system. Nerves.

HMIS RATING
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.
Section 4 - First Aid Measures

**ORAL EXPOSURE**
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**INHALATION EXPOSURE**
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**DERMAL EXPOSURE**
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

**EYE EXPOSURE**
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

**FLASH POINT**
N/A

**AUTOIGNITION TEMP**
N/A

**FLAMMABILITY**
N/A

**EXTINGUISHING MEDIA**
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**FIREFIGHTING**
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

**PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL**
Evacuate area.

**PROCEDURE(S) OF PERSONAL PRECAUTION(S)**
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

**METHODS FOR CLEANING UP**
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

**HANDLING**
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**STORAGE**
Suitable: Keep tightly closed.
Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Color: White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Form: Powder</td>
<td></td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>419.9 AMU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>BP/MP Range</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
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<tr>
<td>Vapor Pressure</td>
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</tr>
<tr>
<td>Vapor Density</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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</tr>
<tr>
<td>SG/Density</td>
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<td></td>
</tr>
<tr>
<td>Bulk Density</td>
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<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
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<td></td>
</tr>
<tr>
<td>Volatile%</td>
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<tr>
<td>VOC Content</td>
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<tr>
<td>Water Content</td>
<td>&lt; 1 %</td>
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<tr>
<td>Solvent Content</td>
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<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Viscosity</td>
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<td>Surface Tension</td>
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<td>Partition Coefficient</td>
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<td>Decomposition Temp.</td>
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<tr>
<td>Flash Point</td>
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<tr>
<td>Explosion Limits</td>
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<td>Flammability</td>
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<td>Autoignition Temp</td>
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<tr>
<td>Refractive Index</td>
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<tr>
<td>Optical Rotation</td>
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<tr>
<td>Miscellaneous Data</td>
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<tr>
<td>Solubility</td>
<td>Solubility in Water: 1 mg/ml H2O clear, colorless</td>
<td></td>
</tr>
</tbody>
</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)
Nerves. Vascular system.

SIGNS AND SYMPTOMS OF EXPOSURE
Nausea, dizziness, and headache. Exposure can cause: Other symptoms of exposure may include sudden collapse, nasal congestion, dry mouth, depression, diarrhea, drowsiness, hypotension, nervousness, palpitations, difficulty in breathing, urinary frequency, blurred vision, abnormality of sensation, reddened eyes, tinnitus, skin rash, itching, tachycardia, impotence, vomiting, and fatigue. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral
Rat
1950 mg/kg
LD50
Remarks: Gastrointestinal:Nausea or vomiting.
Gastrointestinal:Changes in structure or function of salivary glands. Kidney, Ureter, Bladder:Other changes.

Intraperitoneal
Rat
102 MG/KG
LD50

Subcutaneous
Rat
3750 MG/KG
LD50

Intravenous
Rat
73 MG/KG
LD50

Oral
Mouse
5000 mg/kg
LD50

Intraperitoneal
Mouse
60 MG/KG
LD50

Subcutaneous
Mouse
3100 MG/KG
LD50

Intravenous
Mouse
92 MG/KG
LD50

Oral
Dog
> 700 mg/kg
LD50

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 4150 MG/KG
Route of Application: Oral
Exposure Time: (8W MALE/2W PRE-9D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Rat
Dose: 300 MG/KG
Route of Application: Oral
Exposure Time: (9-14D PREG)
Result: Effects on Embryo or Fetus: Fetal death.

Species: Rabbit
Dose: 90 MG/KG
Route of Application: Oral
Exposure Time: (9-14D PREG)
Result: Effects on Embryo or Fetus: Fetal death.

Species: Rabbit
Dose: 450 MG/KG
Route of Application: Oral
Exposure Time: (9-14D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

**CHRONIC EXPOSURE - REPRODUCTIVE HAZARD**

Species: Rat
Dose: 8700 MG/KG
Route of Application: Oral
Exposure Time: (14-22D PREG/20D POST)
Result: Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive).

Species: Rat
Dose: 1450 MG/KG
Route of Application: Oral
Exposure Time: (14-22D PREG/20D POST)
Result: Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4).

Species: Rat
Dose: 4 MG/KG
Route of Application: Subcutaneous
Exposure Time: (22D PREG)
Result: Maternal Effects: Parturition.

Species: Rat
Dose: 12 MG/KG
Route of Application: Subcutaneous
Exposure Time: (4-5D PREG)

Species: Rat
Dose: 1400 MG/KG
Route of Application: Subcutaneous
Exposure Time: (1D MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct. Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females). Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).

Species: Rat
Dose: 30 MG/KG
Route of Application: Implant
Exposure Time: (3D MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females).

Species: Rat
Dose: 9125 MG/KG
Route of Application: Unreported
Exposure Time: (52W MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct.

Species: Dog
Dose: 9125 MG/KG
Route of Application: Unreported
Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 22-62-36/37/38
Risk Statements: Harmful if swallowed. Possible risk of impaired fertility. Irritating to eyes, respiratory system and skin.
S: 28-36
Safety Statements: After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Harmful if swallowed. Possible risk of impaired fertility. Irritating to eyes, respiratory system and skin.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.
WARRANTY

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 Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.