SECTION 1. IDENTIFICATION

Product name: Flomax®

Synonyms: Active ingredient: Tamsulosin hydrochloride <= 1%
Flomax® 0.4 mg tablets, Flomax® 0.025 mg capsules, Flomax® tablets, Flomax® 0.1 mg capsules, Flomax® 0.2 mg capsules, Flomax® 0.4 mg capsules, Flomax® 0.025 mg capsules, Flomax® 0.1 mg capsules, Flomax® 0.2 mg capsules, Flomax® 0.4 mg capsules

Product code: 000000023405

Manufacturer or supplier's details

Company name of supplier: Boehringer-Ingelheim Pharmaceuticals, Incorporated

Address: 900 Ridgebury Road
Ridgefield, Connecticut 06877-0368

Telephone: 

Telefax: 

Emergency telephone number: +1-800-424-9300 CHEMTREC Emergency Phone Number CHEMTREC – 24 Hours

Routine Contact Number: (203) 778-7759

Recommended use of the chemical and restrictions on use

Recommended use: Mixture for production of finished medicinal products.

Prepared by: Corp. Div. EHS & Sustainability / Global EHS Services
EHS-service@boehringer-ingelheim.com

SECTION 2. HAZARDS IDENTIFICATION

Not a hazardous substance or mixture.

Not a hazardous substance or mixture.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamsulosin hydrochloride</td>
<td>106463-17-6</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**

**General advice**
- Remove from exposure, lie down.
- Take off immediately all contaminated clothing.
- Victim to lie down in the recovery position, cover and keep him warm.
- First Aid responders should pay attention to self-protection and use the recommended protective clothing

**If inhaled**
- Move to fresh air.
- Call a physician immediately.

**In case of skin contact**
- Wash off immediately with plenty of water.
- Cover wound with sterile dressing.
- Call a physician immediately.

**In case of eye contact**
- Rinse immediately with plenty of water for at least 15 minutes.
- Keep eye wide open while rinsing.
- Call a physician immediately.

**If swallowed**
- Rinse mouth.
- Drink plenty of water.
- Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**
- None known.

**Notes to physician**
- Observe the summary of product characteristics of proprietary medicinal products

**SECTION 5. FIREFIGHTING MEASURES**

**Suitable extinguishing media**
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
  - Water
  - Foam
  - Dry chemical
  - Carbon dioxide (CO2)

**Specific hazards during firefighting**
- In case of fire and/or explosion do not breathe fumes.
- Can be released in case of fire:
  - Carbon oxides
  - Nitrogen oxides (NOx)
  - Sulphur oxides
  - Hydrogen chloride gas
Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special protective equipment for firefighters: Self-contained breathing apparatus (EN 133) complete suit protecting against chemicals.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Knock down dust with water spray jet.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up: Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Clean-up methods - large spillage: Dampen, pick up mechanically and dispose of. Clean-up methods - small spillage: Use approved industrial vacuum cleaner for removal. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Avoid dust formation.

Advice on safe handling: Provide sufficient air exchange and/or exhaust in work rooms. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Minimize dust generation and accumulation. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Keep container closed when not in use.


Materials to avoid: Keep away from food, drink and animal feedingstuffs.
Advice on Segregation

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>Basis</th>
<th>Factor</th>
<th>Category</th>
<th>Values</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)-5-(2-((2-Ethoxyphenoxy)ethyl)amino)propyl)2-methoxybenzenesulfamide Monohydrochloride 106463-17-6</td>
<td>ECL</td>
<td></td>
<td>3B</td>
<td>4 µg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIPC</td>
<td></td>
<td>1a</td>
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<td></td>
</tr>
</tbody>
</table>

ECL (BIP Exposure Control Limit)

Contains no substances with occupational exposure limit values.

**Engineering measures**

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

**Personal protective equipment**

**Respiratory protection**

- Protecting mask (EN 136)
- Particle filter P3 (EN 143)

Use NIOSH approved respiratory protection.

**Hand protection**

Material: Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

**Directive**

Protective gloves against chemicals and micro-organisms

**Eye protection**

Safety glasses with side-shields

(Not necessary when using full face mask)

**Skin and body protection**

Laboratory: laboratory coat; factory: disposable Overall.

**Protective measures**

Handle in accordance with good industrial hygiene and safety practice.

Do not breathe dust.

Avoid contact with skin, eyes and clothing.

Only use protective equipment in accordance with nation-
al/international regulations. Follow the national regulations about wearing personal protective equipment and the warranty given by the manufacturer for the safe function.

Hygiene measures: General industrial hygiene practice. Wash hands and face before breaks and immediately after handling the product. Keep working clothes separately.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid
Colour: No data available
Odour: No data available
Odour Threshold: No data available
pH: No data available
Melting point/range: No data available
Boiling point/boiling range: Not applicable
Flash point: Not applicable
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper explosion limit: No data available
Lower explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: Not applicable
Relative density: No data available
Bulk density: No data available
Solubility(ies)
  Water solubility: No data available
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity
  Viscosity, dynamic : Not applicable

Explosive properties : Not tested

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : No data available

Hazardous decomposition products : No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:
Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
  Method: Calculation method

Components:
Tamsulosin hydrochloride:
Acute oral toxicity : LD50 (Rat, male): = 650 mg/kg
  LD50 (Rat, female): = 787 mg/kg
Acute inhalation toxicity : Remarks: No data available
Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation
Not classified based on available information.

Components:
Tamsulosin hydrochloride:
Remarks: No data available
Serious eye damage/eye irritation
Not classified based on available information.

Components:
Tamsulosin hydrochloride:
Species: Rabbit
Result: No skin irritation

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:
Tamsulosin hydrochloride:
Species: Guinea pig
Result: No alert for skin sensitization

Germ cell mutagenicity
Not classified based on available information.

Components:
Tamsulosin hydrochloride:
Genotoxicity in vitro
  Test Type: Ames-test
  Species: Salmonella typhimurium
  Result: negative
  Remarks: The substance was not mutagenic in bacteria.

  Test Type: Chromosomal aberration test
  Species: CHO (chinese hamster ovary)
  Result: positive

  Test Type: Mouse lymphoma assay
  Species: mouse lymphoma cells
  Result: negative

  Test Type: Cytogenetic assay
  Species: Human lymphocytes
  Result: positive

Genotoxicity in vivo
  Test Type: Micronucleus test
  Species: Mouse
  Result: negative
  Remarks: No mutagenic effects reported.

  Test Type: Sister chromatid exchange assay
  Species: Chinese hamster
  Result: negative

Carcinogenicity
Not classified based on available information.

Components:
Tamsulosin hydrochloride:
Remarks: No data available

**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.

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

**NTP**
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**
Not classified based on available information.

**STOT - single exposure**
Not classified based on available information.

**STOT - repeated exposure**
Not classified based on available information.

**Aspiration toxicity**
Not classified based on available information.

**Components:**
**Tamsulosin hydrochloride:**
No data available

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Components:**
**Tamsulosin hydrochloride:**
- **Toxicity to fish:** LC50: 750 mg/l
  Exposure time: 96 h
  GLP: yes

- **Toxicity to daphnia and other aquatic invertebrates:** EC50 (Daphnia (water flea)): 180 mg/l
  GLP: yes

- **Toxicity to algae:** Remarks: No data available

- **Toxicity to fish (Chronic toxicity):** Remarks: No data available

- **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):** Remarks: No data available
Toxicity to bacteria: Remarks: No data available

Persistence and degradability
No data available

Bioaccumulative potential

Components:
Tamsulosin hydrochloride:
Partition coefficient: n-octanol/water: log Pow: 0.5 (37 °C)

Mobility in soil

Product:
Distribution among environmental compartments: Remarks: No data available

Other adverse effects

Product:
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with local regulations.
Contaminated packaging: Packs that cannot be cleaned should be disposed of in the same manner as the contents. Uncontaminated packaging can be recycled.

SECTION 14. TRANSPORT INFORMATION

International Regulation
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards: Acute Health Hazard
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know
Non-hazardous galenic excipients Not Assigned 90 - 100 %

New Jersey Right To Know
Non-hazardous galenic excipients Not Assigned 90 - 100 %
Tamsulosin hydrochloride 106463-17-6 1 - 5 %

California Prop 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
SECTION 16. OTHER INFORMATION

Further information

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>HEALTH 0</td>
</tr>
<tr>
<td>Flammability</td>
<td>FLAMMABILITY 1</td>
</tr>
<tr>
<td>Instability</td>
<td>PHYSICAL HAZARD 0</td>
</tr>
</tbody>
</table>

Vertical lines in the left hand margin indicate an amendment from the previous version.
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Sources of key data used to compile the Safety Data Sheet:
The specifications are based on own tests and/or literature data.

Revision Date: 06/03/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.