Material Safety Data Sheet
alpha-Toluenesulfonyl fluoride, 99%

MSDS# 06763

Section 1 - Chemical Product and Company Identification

MSDS Name: alpha-Toluenesulfonyl fluoride, 99%
Catalog Numbers: AC215740000, AC215740010, AC215740050, AC215740100, AC215740500
Synonyms: Phenylmethylsulfonyl fluoride; PMSF; Benzenemethanesulfonyl fluoride

Company Identification:
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 329-98-6
Chemical Name: alpha-Toluenesulfonyl fluoride
%: 99.0
EINECS#: 206-350-2

Hazard Symbols: C
Risk Phrases: 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW


Potential Health Effects
Eye: Causes eye burns. Contact with eyes may cause severe irritation, and possible eye burns.
Skin: Causes skin burns.
Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.
Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract.
Chronic: No information found.

Section 4 - First Aid Measures

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower
Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Do NOT use water directly on fire. Use foam, dry chemical, or carbon dioxide.

Autoignition Temperature: Not available.
Flash Point: Not available
Explosion Limits: Not available
Lower:
Explosion Limits: Not available
Upper:
NFPA Rating: NFPA Rating:

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

Storage: Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Keep containers tightly closed.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>alpha-Toluenesulfonic</td>
<td>none listed</td>
<td>none listed</td>
<td>2.5 mg/m3 TWA</td>
</tr>
<tr>
<td>yl fluoride</td>
<td></td>
<td></td>
<td>(as dust)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(listed under</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fluorides).</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: alpha-Toluenesulfonyl fluoride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Needles
Color: white
Odor: None reported.
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 92.00 - 94.00 deg C
Decomposition Temperature: Not available
Solubility in water: hydrolysis
Specific Gravity/Density:
Molecular Formula: C7H7FO2S
Molecular Weight: 174.19

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, exposure to moist air or water.
Incompatibilities with Other Materials Strong oxidizing agents, strong bases, moisture.
Hazardous Decomposition Products Carbon monoxide, oxides of sulfur, carbon dioxide, hydrogen fluoride gas.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 329-98-6: XT8040000
LD50/LC50:
\[\text{CAS# 329-98-6: Oral, mouse: } LD50 = 200 \text{ mg/kg}; \]
Carcinogenicity: alpha-Toluenesulfonyl fluoride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: CORROSIVE SOLIDS, TOXIC, N.O.S.
Hazard Class: 8
UN Number: UN2923
Packing Group: II
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information
European/International Regulations
  European Labeling in Accordance with EC Directives
    Hazard Symbols: C
    Risk Phrases:
      R 34 Causes burns.
    Safety Phrases:
      S 24/25 Avoid contact with skin and eyes.
  WGK (Water Danger/Protection)
    CAS# 329-98-6: Not available
  Canada
    CAS# 329-98-6 is listed on Canada's DSL List
    Canadian WHMIS Classifications: Not available
    This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations
    and the MSDS contains all of the information required by those regulations.
    CAS# 329-98-6 is not listed on Canada's Ingredient Disclosure List.

US Federal
  TSCA
    CAS# 329-98-6 is listed on the TSCA
    Inventory.

Section 16 - Other Information
  MSDS Creation Date: 3/08/1999
  Revision #5 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available
to us. However, we make no warranty of merchantability or any other warranty, express or implied,
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company has been advised of the possibility of such damages.

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