Section 1 - Chemical Product and Company Identification

MSDS Name: 4-Fluorophenyl sulfone, 99%
Catalog Numbers: AC119620000, AC119620100, AC119620250
Synonyms: Benzene, 1,1'-sulfonylbis[4-fluoro-; Bis(p-fluorophenyl)sulphone
Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaan 3a
2440 Geel, Belgium
Company Identification: (USA)
Acros Organics
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#: 383-29-9
Chemical Name: Benzene, 1,1'-sulfonylbis[4-fluoro-
%: 99
EINECS#: 206-847-4

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Caution! The toxicological properties of this material have not been fully investigated. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Target Organs: No data found.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May be harmful if inhaled.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If
Ingestion: conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.

Explosion Limits: Not available
Lower:
Upper: Not available

NFPA Rating: health: 1; flammability: 0; instability: 0;

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. Avoid generating dusty conditions. Provide ventilation. Vacuum or sweep up material and place into a suitable, dry disposal container.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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>Benzene, 1,1'-sulfo</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>nylbis4-fluoro-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Benzene, 1,1'-sulfonylbis4-fluoro-: None listed

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

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.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder
Color: brown to 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: 97 - 100 deg C
Decomposition Temperature: Not available
Solubility in water: Not available.
Specific Gravity/Density: Not available.
Molecular Formula: C12H8F2O2S
Molecular Weight: 254.25

Section 10 - Stability and Reactivity
Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other Materials Not available
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# 383-29-9: None listed
LD50/LC50: RTECS: Not available.
Carcinogenicity: Benzene, 1,1’- sulfonylbis4-fluoro- - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: The toxicological properties have not been fully investigated.

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: Not regulated.
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives
   Hazard Symbols: Not available
   Risk Phrases:
   Safety Phrases:
WGK (Water Danger/Protection)
   CAS# 383-29-9: Not available
Canada
CAS# 383-29-9 is listed on Canada's NDSL 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# 383-29-9 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
CAS# 383-29-9 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 9/02/1997
Revision #7 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 merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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