



Material Safety Data Sheet

Benzenesulfonyl chloride

MSDS# 96061

Section 1 - Chemical Product and Company Identification

MSDS Name: Benzenesulfonyl chloride

Catalog Numbers: AC148470000, AC148470010, AC148472500, AC148480000, AC148480010, AC148480100

Numbers: AC148480100, AC148482500, ACE1010404

Synonyms: Benzene sulphonyl chloride; benzenesulfonic acid chloride.

Company Identification: Acros Organics BVBA  
Janssen Pharmaceuticaaan 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

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CAS#: 98-09-9  
Chemical Name: Benzenesulfonyl chloride  
%: >96  
EINECS#: 202-636-6  
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Hazard Symbols: C



Risk Phrases: 22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Moisture sensitive. May be harmful if swallowed. Causes eye and skin burns. Causes digestive and respiratory tract burns. Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns. May cause an allergic reaction in certain individuals.

Ingestion: Causes gastrointestinal tract burns. May cause perforation of the digestive tract. May be harmful if swallowed.

Inhalation: Causes chemical burns to the respiratory tract. May cause pulmonary edema and severe respiratory disturbances.

Chronic: Chronic exposure may cause liver damage.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. 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. Use of water will produce irritating and toxic vapors of hydrogen chloride. Hydrochloric acid solutions react with most metals, forming flammable hydrogen gas.

Extinguishing Media: Do NOT get water inside containers. For large fires, use water spray, fog or alcohol-resistant foam. Most foams will react with the material and release corrosive/toxic gases. For small fires, use dry chemical, dry sand, alcohol-resistant foam.

Autoignition Temperature: Not applicable.

Flash Point: 128 deg C ( 262.40 deg F)

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 3; flammability: 1; instability: 1;

### Section 6 - Accidental Release Measures

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

Spills/Leaks: Absorb the liquid and scrub the area with detergent and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not get water inside containers. Spill may be carefully neutralized with soda ash (sodium carbonate).

### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not ingest or inhale. Use caution when opening. Can explode without warning when caps of old containers are unscrewed. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Keep from contact with oxidizing materials. Corrosives area. Water free area.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzenesulfonyl chloride	none listed	none listed	none listed

OSHA Vacated PELs: Benzenesulfonyl chloride: None listed

#### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

#### Exposure Limits

#### Personal Protective Equipment

- Eyes: Wear chemical splash goggles.
- Skin: Wear appropriate protective gloves to prevent skin exposure.
- Clothing: Wear appropriate protective clothing to prevent skin exposure.
- Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a 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: Liquid

Color: colorless, oily

Odor: pungent odor

pH: Not available

Vapor Pressure: 0.68 mm Hg @ 25 deg C

Vapor Density: 6.1

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 251-252 deg C (dec)

Freezing/Melting Point: 14.5 deg C ( 58.10°F)

Decomposition Temperature:

Solubility in water: Insoluble & stable in cold water

Specific Gravity/Density: 1.384

Molecular Formula: C6H5SO2Cl

Molecular Weight: 176.62

#### Section 10 - Stability and Reactivity

- Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.  
Stable at room temperature in closed containers under normal storage and handling conditions.
- Conditions to Avoid: High temperatures, contact with water.
- Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, ammonia, dimethyl sulfoxide, aliphatic amines.
- Hazardous Decomposition Products: Hydrogen chloride, chlorine, carbon monoxide, oxides of sulfur, carbon dioxide.
- Hazardous Polymerization: Has not been reported.

#### Section 11 - Toxicological Information

- RTECS#: CAS# 98-09-9: DB8750000
- RTECS:  
CAS# 98-09-9: Oral, mouse: LD50 = 828 mg/kg;
- LD50/LC50: Oral, rabbit: LD50 = 828 mg/kg;  
Oral, rat: LD50 = 1960 mg/kg;
- Carcinogenicity: Benzenesulfonyl chloride - 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: BENZENE SULFONYL CHLORIDE

Hazard Class: 8

UN Number: UN2225

Packing Group: III

Canada TDG

Shipping Name: BENZENESULPHONYL CHLORIDE  
Hazard Class: 8  
UN Number: UN2225  
Packing Group: III

USA RQ: CAS# 98-09-9: 100 lb final RQ; 45.4 kg final RQ

#### Section 15 - Regulatory Information

##### European/International Regulations

###### European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

###### WGK (Water Danger/Protection)

CAS# 98-09-9: 1

###### Canada

CAS# 98-09-9 is listed on Canada's DSL List

Canadian WHMIS Classifications: E

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# 98-09-9 is listed on Canada's Ingredient Disclosure List

###### US Federal

###### TSCA

CAS# 98-09-9 is listed on the TSCA Inventory.

#### Section 16 - Other Information

MSDS Creation Date: 5/20/1998

Revision #6 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, 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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