

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

*MSDS Name:* 4-Chloro-3-(trifluoromethyl)benzenesulphonyl chloride  
*Synonyms:* Not available  
*Company Identification:* PI Chemicals Ltd.  
Building B, 633 E Shan Road, Pudong New Area  
Shanghai 200127, China  
*Telephone Number:* 86-21-58953700  
*Fax Number:* 86-21-58953701

### Section 2 - Product Information

*Catalog Number:* PI-19442  
*CAS Number:* 32333-53-2  
*MDL Number:* MFCD00024882  
*EC Number:* Not available  
*Purity:* 98.0%

### Section 3 - Physical and Chemical Properties

*Physical state:* Liquid  
*Color:* Pale yellow  
*Molecular Formula:* C<sub>7</sub>H<sub>3</sub>Cl<sub>2</sub>F<sub>3</sub>O<sub>2</sub>S  
*Molecular Weight:* 279.06  
*Freezing/Melting Point:* Undetermined  
*Boiling Point:* Undetermined  
*Flash Point:* Undetermined  
*Autoignition Temperature:* Undetermined  
*Refractive Index (n<sub>D</sub>20):* Undetermined  
*Density:* Undetermined  
*Decomposition Temperature:* Undetermined  
*Solubility:* Undetermined

### Section 4 - Hazards Identification

*Eye:* Causes eye irritation.  
*Skin:* Causes skin irritation. Harmful if absorbed through the skin.  
*Ingestion:* May cause irritation of the digestive tract. Toxic if swallowed.  
*Inhalation:* May be harmful if inhaled. Cause respiratory tract irritation.

## Section 5 - First Aid Measures

- Eye:** 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 and soap for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops and persists.
- Ingestion:** Get medical aid immediately. Wash mouth out with 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.

## Section 6 - Stability and Reactivity

- Chemical Stability:** Moisture sensitive.
- Materials to avoid:** Strong oxidizing agents.
- Hazardous Decomposition Products:** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulfur Oxides, hydrogen fluoride, hydrogen chloride.
- Hazardous Polymerization:** Has not been reported.

## Section 7 - Handling and Storage

- Handling:** Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Avoid contact with skin and eyes. Wash thoroughly after handling. Mechanical exhaust required. Keep away from sources of ignition - No smoking.
- Storage:** Store in a cool, dry and well-ventilated place. Store in a tightly closed container. Corrosives area. Store under an inert atmosphere.

## Section 8 - Personal Protection

- 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:** 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 - Fire and Explosion Hazard Data

- General Information:** As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.
- Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>), dry chemical or chemical foam.

## Section 10 - Accidental Release Measures

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

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

## Section 11 - Toxicological Information

**RTECS#:** CAS# 32333-53-2: Not available

**LD50/LC50:** Not available

**Carcinogenicity:** 4-Chloro-3-(trifluoromethyl)benzenesulphonyl chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

## Section 12 - Environmental information

Not available

## Section 13 - Disposal Consideration

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

	<b>IATA</b>	<b>IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	4-Chloro-3-(trifluoromethyl)benzenesulphonyl chloride	4-Chloro-3-(trifluoromethyl)benzenesulphonyl chloride	4-Chloro-3-(trifluoromethyl)benzenesulphonyl chloride
<b>Hazard Class:</b>	8	8	8
<b>UN Number:</b>	3261	3261	3261
<b>Packing Group:</b>	III	III	III

## Section 15 - Regulatory Information

### European/International Regulations

European Labeling in Accordance with EC Directives

Signal word: Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

Risk Phrases:

R 34: Cause 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 and gloves and eye/face protection.

S 45: In case of accident or if you feel unwell, seek medical advice immediately.

WGK (Water Danger/Protection)

CAS# 32333-53-2: Not available

Canada

CAS# 32333-53-2: Not available

US Federal

TSCA

CAS#32333-53-2 is not listed on the TSCA Inventory. It is for research and development use only.

### ***Section 16 - Additional Information***

MSDS Creation Date: May 10, 2009

Update: April 14, 2011

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