## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>SIC2415.0</td>
</tr>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Formula</td>
<td>C8H8Cl4O2SSi</td>
</tr>
<tr>
<td>Synonyms</td>
<td>TRICHLOROSILYLETHYLPHENYLSULFONYL CHLORIDE; P-[2-(TRICHLOROSILYL)ETHYL]BENZENESULPHONYL CHLORIDE</td>
</tr>
<tr>
<td>Chemical family</td>
<td>CHLOROSILANE</td>
</tr>
</tbody>
</table>

### 1.2. Recommended use and restrictions on use

**Recommended use**: Chemical intermediate

### 1.3. Supplier

**GELEST, INC.**  
11 East Steel Road  
Morrisville, PA 19067  
**USA**  
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST  
info@gelest.com - www.gelest.com

### 1.4. Emergency telephone number

**Emergency number**: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**
- Skin corrosion/irritation Category 1B H314 - Causes severe skin burns and eye damage
- Serious eye damage/eye irritation Category 1 H318 - Causes serious eye damage
- Carcinogenicity Category 1B H350 - May cause cancer

**Full text of H statements**: see section 16

### 2.2. GHS Label elements, including precautionary statements

**Hazard pictograms (GHS US)**: ![Danger]

**Signal word (GHS US)**: Danger

**Hazard statements (GHS US)**:
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H350 - May cause cancer

**Precautionary statements (GHS US)**:
- P202 - Do not handle until all safety precautions have been read and understood.
- P201 - Obtain special instructions before use.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P260 - Do not breathe vapors.
- P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
- P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310 - Immediately call a POISON CENTER
- P264 - Wash hands thoroughly after handling.
- P363 - Wash contaminated clothing before reuse.
- P308+P313 - If exposed or concerned: Get medical advice/attention.
- P405 - Store locked up.
- P501 - Dispose of contents/container to licensed waste disposal facility.

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride
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2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichlorosilylethylphenylsulfonyl chloride</td>
<td>(CAS-No.) 79793-00-3</td>
<td>&gt; 45</td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>(CAS-No.) 75-09-2</td>
<td>&gt; 45</td>
<td>Acute Tox. 4 (Oral), H302, Carc. 1B, H350</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact: Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects: Causes severe skin burns and eye damage. May cause cancer.
Symptoms/effects after inhalation: May cause irritation to the respiratory tract. Overexposure may cause: Coughing. Headache. Nausea.
Symptoms/effects after skin contact: Causes (severe) skin burns.
Symptoms/effects after eye contact: Causes serious eye damage.
Symptoms/effects after ingestion: May be harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


Fire hazard: Irritating fumes of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame.

5.2. Specific hazards arising from the chemical

Firefighting instructions: Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection. Avoid breathing vapors.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal.
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride
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6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Provide local exhaust or general room ventilation. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapor and mist.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container tightly closed.
Storage area: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Methylene chloride (75-09-2)</th>
<th>ACGIH TWA (ppm)</th>
<th>50 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>25 ppm</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (STEL) (ppm)</td>
<td>125 ppm (see 29 CFR 1910.1052)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (ppm)</td>
<td>2300 ppm</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment
Personal protective equipment:
Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:
Neoprene or nitrile rubber gloves

Eye protection:
Chemical goggles or face shield. Contact lenses should not be worn

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>338.11 g/mol</td>
</tr>
<tr>
<td>Color</td>
<td>Straw. Amber.</td>
</tr>
<tr>
<td>Odor</td>
<td>Acrid.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Refractive index</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>39 °C initial (methylene chloride)</td>
</tr>
</tbody>
</table>
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride
Safety Data Sheet

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>615 °C (methylene chloride)</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>~ 380 mm Hg @ 22°C</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.37</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&gt; 50 %</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Reacts with water.</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>15.5 - 66.4 vol %</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable in sealed containers stored under a dry inert atmosphere.

10.3. Possibility of hazardous reactions
Reacts with water and moisture in air, liberating hydrogen chloride.

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride (79793-00-3)**

ATE US (oral) 500 mg/kg body weight

Methylene chloride (75-09-2)

<table>
<thead>
<tr>
<th>Test</th>
<th>Value/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1600 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>53 mg/l (Exposure time: 6 h)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1600 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>53 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>53 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Methylene chloride is an experimental mutagen.

Carcinogenicity: May cause cancer.

Methylene chloride is an experimental carcinogen.

**Methylene chloride (75-09-2)**

<table>
<thead>
<tr>
<th>IARC group</th>
<th>2A - Probably carcinogenic to humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Toxicology Program (NTP) Status</td>
<td>1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen</td>
</tr>
</tbody>
</table>
**2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride**

Safety Data Sheet

<table>
<thead>
<tr>
<th><strong>Methylene chloride (75-09-2)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>In OSHA Hazard Communication Carcinogen list</td>
</tr>
<tr>
<td>In OSHA Specifically Regulated Carcinogen list</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
</tr>
<tr>
<td>Specific target organ toxicity – single exposure</td>
</tr>
<tr>
<td>Specific target organ toxicity – repeated exposure</td>
</tr>
<tr>
<td>Aspiration hazard</td>
</tr>
<tr>
<td>Potential Adverse human health effects and symptoms</td>
</tr>
<tr>
<td>Symptoms/effects after inhalation</td>
</tr>
<tr>
<td>Symptoms/effects after skin contact</td>
</tr>
<tr>
<td>Symptoms/effects after eye contact</td>
</tr>
<tr>
<td>Symptoms/effects after ingestion</td>
</tr>
</tbody>
</table>

**SECTION 12: Ecological information**

**12.1. Toxicity**

<table>
<thead>
<tr>
<th>Methylene chloride (75-09-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
<tr>
<td>EC50 Daphnia 2</td>
</tr>
</tbody>
</table>

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Methylene chloride (75-09-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
</tr>
<tr>
<td>Log Pow</td>
</tr>
</tbody>
</table>

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Other adverse effects: This substance may be hazardous to the environment.

Effect on the ozone layer: No additional information available

**SECTION 13: Disposal considerations**

**13.1. Disposal methods**

<table>
<thead>
<tr>
<th>Product/ Packaging disposal recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be incinerated. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ecology - waste materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

**SECTION 14: Transport information**

**14.1. UN number**

| UN-No.(DOT) | 2987 |
| UN2987 |

**14.2. UN proper shipping name**

<table>
<thead>
<tr>
<th>Transport document description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN2987 Chlorosilanes, corrosive, n.o.s. (2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride), 8, II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proper Shipping Name (DOT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorosilanes, corrosive, n.o.s. (2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class (DOT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 - Class 8 - Corrosive material 49 CFR 173.136</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing group (DOT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>II - Medium Danger</td>
</tr>
</tbody>
</table>
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride
Safety Data Sheet

Hazard labels (DOT) : 8 - Corrosive

DOT Packaging Non Bulk (49 CFR 173.xxx) : 206
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Packaging Exceptions (49 CFR 173.xxx) : None

14.3. Additional information

Emergency Response Guide (ERG) Number : 156
Other information : No supplementary information available.

Transport by sea
DOT Vessel Stowage Location : C - The material must be stowed “on deck only” on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 40 - Stow “clear of living quarters”

Air transport
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

SECTION 15: Regulatory information

15.1. US Federal regulations

Trichlorosilylethylphenylsulfonyl chloride (79793-00-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Methylene chloride (75-09-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313
SARA Section 313 - Emission Reporting 0.1 %

15.2. International regulations

CANADA

Trichlorosilylethylphenylsulfonyl chloride (79793-00-3)
Listed on the Canadian NDSL (Non-Domestic Substances List)

Methylene chloride (75-09-2)
Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification
Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

Trichlorosilylethylphenylsulfonyl chloride (79793-00-3)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Methylene chloride (75-09-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHLOROSILANE, 50% in methylene chloride
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Methylene chloride (75-09-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on PICCS (Philippines Inventory of Chemicals)
Listed on the Philippine PRTR Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on CICR (Turkish Inventory and Control of Chemicals)

15.3. US State regulations

WARNING: This product can expose you to Methylene chloride, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Methylene chloride (75-09-2)
U.S. - California - Proposition 65 - Carcinogens List
U.S. - California - Proposition 65 - Developmental Toxicity
U.S. - California - Proposition 65 - Reproductive Toxicity - Female
U.S. - California - Proposition 65 - Reproductive Toxicity - Male
No significant risk level (NSRL)
Maximum allowable dose level (MADL)
Yes
No
No
No
200 µg/day (inhalation)

Methylene chloride (75-09-2)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases:
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H350 May cause cancer

Abbreviations and acronyms:
Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating
Health: 4 Severe Hazard - Life-threatening, major or permanent damage may result from single or repeated overexposures
Flammability: 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)
Physical: 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Prepared by safety and environmental affairs.
Date of issue: 07/11/2014 Revision date: 04/05/2019 Version: 1.2

SDS US (GHS HazCom 2012) - Custom
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
2-(4-CHLOROSULFONYLPHENYL)ETHYLTRICHOROSILANE, 50% in methylene chloride
Safety Data Sheet

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