



4-(AZIDOSULFONYL)PHENETHYLTRIMETHOXYSILANE, 22-25% in methanol/toluene

Safety Data Sheet SIA0790.0

Date of issue: 10/06/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| | |
|-----------------|--|
| Product form | : Mixture |
| Physical state | : Liquid |
| Product name | : 4-(AZIDOSULFONYL)PHENETHYLTRIMETHOXYSILANE, 22-25% in methanol/toluene |
| Product code | : SIA0790.0 |
| Formula | : C11H17N3O5Si |
| Synonyms | : 4-[2-(TRIMETHOXYSILYL)ETHYL]-1-BENZENESULFONYL AZIDE; 2-(TRIMETHOXYSILYL)ETHYLPHENYLSULFONYL AZIDE |
| Chemical family | : ORGANOSILANE IN SOLVENT |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|------------------------------|---|
| Use of the substance/mixture | : Chemical intermediate For research and industrial use only |
|------------------------------|---|

1.3. Details of the supplier of the safety data sheet

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: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

| | |
|----------------------------------|------|
| Flam. Liq. 3 | H226 |
| Acute Tox. 3 (Oral) | H301 |
| Acute Tox. 3 (Dermal) | H311 |
| Acute Tox. 3 (Inhalation:vapour) | H331 |
| Skin Irrit. 2 | H315 |
| Eye Dam. 1 | H318 |
| Repr. 2 | H361 |
| STOT SE 1 | H370 |
| STOT SE 3 | H336 |
| STOT RE 2 | H373 |
| Aquatic Acute 3 | H402 |

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS02

GHS05

GHS06

GHS07

GHS08

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H226 - Flammable liquid and vapor
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H315 - Causes skin irritation
H318 - Causes serious eye damage
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to organs
H373 - May cause damage to organs through prolonged or repeated exposure
H402 - Harmful to aquatic life

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves/protective clothing/eye protection/face protection

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P310 - Immediately call a POISON CENTER
P210 - Keep away from heat, open flames, sparks. - No smoking
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe vapors
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P330 - Rinse mouth
P301+P310 - If swallowed: Immediately call a POISON CENTER
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
P332+P313 - If skin irritation occurs: Get medical advice/attention
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P321 - Specific treatment (see first aid instructions on this label)
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Keep in a cool place
P405 - Store locked up
P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | GHS-US classification |
|---|---------------------|---------|---|
| Methanol | (CAS No) 67-56-1 | 35 - 40 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 1, H370 STOT SE 3, H336 |
| Toluene | (CAS No) 108-88-3 | 35 - 40 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 |
| 4-(2-Trimethoxysilylethyl)benzenesulfonyl azide | (CAS No) 68479-60-7 | 20 - 30 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 |

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. |
| First-aid measures after inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention 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. |

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4.2. Most important symptoms and effects, both acute and delayed

| | |
|--------------------------------------|---|
| Symptoms/injuries | : Causes damage to organs. Suspected of damaging fertility or the unborn child. May cause damage to organs. |
| Symptoms/injuries after inhalation | : Toxic if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. May cause drowsiness or dizziness. May cause irritation to the respiratory tract. Overexposure may cause: Nausea. Headache. Visual disturbances. Cough. Impairment of coordination, distorted perception and CNS disturbances have been reported for toluene intoxication. Vapor inhalation of toluene may lead to impairment of coordination mental alertness, and reaction times, leading to accident proneness. |
| Symptoms/injuries after skin contact | : Toxic in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. |
| Symptoms/injuries after eye contact | : Causes serious eye damage. |
| Symptoms/injuries after ingestion | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours. |
| Chronic symptoms | : Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision. On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. |

4.3. Indication of any immediate medical attention and special treatment needed

NOTE TO PHYSICIAN: The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray. Foam. Carbon dioxide. Dry chemical. |
| Unsuitable extinguishing media | : Do not use straight streams. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|---|
| Fire hazard | : Flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame. |
| Explosion hazard | : May form flammable/explosive vapor-air mixture. |

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| 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

| | |
|------------------|---|
| General measures | : Eliminate every possible source of ignition. Use special care to avoid static electric charges. |
|------------------|---|

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | : Wear protective equipment as described in Section 8. |
| Emergency procedures | : Evacuate unnecessary personnel. |

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|--|

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

| | |
|-------------------------|--|
| For containment | : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. |
| 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. Use only non-sparking tools. |

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|--|
| Additional hazards when processed | : Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| Precautions for safe handling | : Obtain special instructions before use. 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. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Vent containers slowly while grounded. Use only non-sparking tools. |
| Hygiene measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|------------------------|--|
| Technical measures | : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof ventilating equipment. |
| Storage conditions | : Keep container tightly closed. Store in sealed containers below 30°C. Store locked up. Keep in a cool place. |
| Incompatible materials | : Acids. Alcohols. Amines. Moisture. Oxidizing agent. Peroxides. Water. |
| Storage area | : Store in a well-ventilated place. Store away from heat. |

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Methanol (67-56-1) | | |
|--------------------|--------------------------|-----------|
| USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 250 ppm |
| USA NIOSH | NIOSH REL (TWA) (mg/m³) | 260 mg/m³ |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 200 ppm |
| USA NIOSH | NIOSH REL (STEL) (mg/m³) | 325 mg/m³ |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 250 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m³) | 260 mg/m³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 200 ppm |
| USA IDLH | US IDLH (ppm) | 6000 ppm |
| Toluene (108-88-3) | | |
| USA ACGIH | ACGIH TWA (ppm) | 20 ppm |
| USA NIOSH | NIOSH REL (TWA) (mg/m³) | 375 mg/m³ |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 100 ppm |
| USA NIOSH | NIOSH REL (STEL) (mg/m³) | 560 mg/m³ |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 150 ppm |
| USA OSHA | OSHA PEL (TWA) (ppm) | 200 ppm |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 300 ppm |
| USA IDLH | US IDLH (ppm) | 500 ppm |

8.2. Exposure controls

| | |
|----------------------------------|--|
| Appropriate engineering controls | : Provide local exhaust or general room ventilation. |
| 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 | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor - amine gas (brown cartridge) respirator. |

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Molecular mass | : 331.42 g/mol |
| Color | : Straw to amber. |
| Odor | : Mild. |
| Odor threshold | : No data available |
| Refractive index | : 1.55 |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : < 0 °C |
| Boiling point | : 68 °C (initial, methanol) |
| Flash point | : 29 °C |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Flammable liquid and vapor |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : 0.9 |
| VOC content | : > 70 % |
| Solubility | : Insoluble in water. Reacts with water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : 6 - 36.5 vol % (lower; upper: methanol) |

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 below 30°C. May slowly build nitrogen pressure.

10.3. Possibility of hazardous reactions

May form explosive azides on contact with copper, cadmium, brass, bronze, lead, silver and mercury. Reacts with water and moisture in air, liberating methanol.

10.4. Conditions to avoid

Heat. Sparks. Open flame.

10.5. Incompatible materials

Acids. Alcohols. Amines. Moisture. Oxidizing agent. Peroxides. Water.

10.6. Hazardous decomposition products

Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:vapour: Toxic if inhaled.

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| | |
|-----------------|---------------------------|
| ATE US (oral) | 250.000 mg/kg body weight |
| ATE US (dermal) | 750.000 mg/kg body weight |
| ATE US (vapors) | 7.500 mg/l/4h |

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| Methanol (67-56-1) | |
|---|---|
| LC50 inhalation rat (ppm) | 22500 ppm (Exposure time: 8 h) |
| ATE US (oral) | 100.000 mg/kg body weight |
| ATE US (dermal) | 300.000 mg/kg body weight |
| ATE US (vapors) | 3.000 mg/l/4h |
| Toluene (108-88-3) | |
| LD50 oral rat | 2600 mg/kg |
| LD50 dermal rabbit | 12000 mg/kg |
| LC50 inhalation rat (mg/l) | 12.5 mg/l/4h |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye damage. |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Toluene (108-88-3) | |
| IARC group | 3 - Not classifiable |
| Reproductive toxicity | : Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity (single exposure) | : Causes damage to organs. May cause drowsiness or dizziness. |
| Specific target organ toxicity (repeated exposure) | : May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : This material liberates small amounts of methanol on contact with moisture. Material generates methanol on contact with water or moisture in skin, eyes and mucous membranes and has an irritating, dehydrating effect on overexposed tissue. Vapor inhalation of toluene may lead to impairment of coordination mental alertness, and reaction times, leading to accident proneness. Exposure to levels around 500ppm leads to narcotic effects including nausea, headache and mental confusion. |
| Symptoms/injuries after inhalation | : Toxic if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. May cause drowsiness or dizziness. May cause irritation to the respiratory tract. Overexposure may cause: Nausea. Headache. Visual disturbances. Cough. Impairment of coordination, distorted perception and CNS disturbances have been reported for toluene intoxication. Vapor inhalation of toluene may lead to impairment of coordination mental alertness, and reaction times, leading to accident proneness. |
| Symptoms/injuries after skin contact | : Toxic in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. |
| Symptoms/injuries after eye contact | : Causes serious eye damage. |
| Symptoms/injuries after ingestion | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes nausea, vomiting, headache, visual effects including blindness. Onset of symptoms may be delayed up to 48 hours. |
| Chronic symptoms | : Methanol may effect the central nervous system resulting in persistent or recurring headaches or impaired vision. On contact with water this compound liberates methanol which is known to have a chronic effect on the central nervous system. |
| Reason for classification | : Expert judgment |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life.

| Methanol (67-56-1) | |
|--------------------|--|
| LC50 fish 1 | 28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| LC50 fish 2 | > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| Toluene (108-88-3) | |
| LC50 fish 1 | 15.22 - 19.05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| EC50 Daphnia 1 | 5.46 - 9.83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static]) |
| LC50 fish 2 | 12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 Daphnia 2 | 11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

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Methanol (67-56-1)

| | |
|------------|-------|
| BCF fish 1 | < 10 |
| Log Pow | -0.77 |

Toluene (108-88-3)

| | |
|---------|------|
| Log Pow | 2.65 |
|---------|------|

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

| | |
|------------------------------|--|
| Effect on ozone layer | : No additional information available |
| Effect on the global warming | : No known ecological damage caused by this product. |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|---------------------------------|--|
| Sewage disposal recommendations | : Do not dispose of waste into sewer. |
| Waste disposal recommendations | : May be incinerated. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility. |
| Additional information | : Handle empty containers with care because residual vapors are flammable. |
| Ecology - waste materials | : Avoid release to the environment. |

SECTION 14: Transport information

14.1. UN number

| | |
|-------------|--------|
| UN-No.(DOT) | : 1993 |
| DOT NA no. | UN1993 |

14.2. UN proper shipping name

| | |
|----------------------------------|---|
| Proper Shipping Name (DOT) | : Flammable liquids, n.o.s. (4-(AZIDOSULFONYL)PHENETHYLTRIMETHOXYSilANE, 22-25% in methanol/toluene) |
| Transport hazard class(es) (DOT) | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |
| Hazard labels (DOT) | : 3 - Flammable liquid |



| | |
|---|---|
| DOT Symbols | : G - Identifies PSN requiring a technical name |
| Packing group (DOT) | : III - Minor Danger |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 150 |
| DOT Packaging Non Bulk (49 CFR 173.xxx) | : 203 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 242 |

14.3. Additional information

| | |
|---------------------------------------|---|
| Emergency Response Guide (ERG) Number | : 28 |
| Other information | : No supplementary information available. |

Transport by sea

| | |
|-----------------------------|---|
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
|-----------------------------|---|

Air transport

| | |
|--|---------|
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 60 L |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 220 L |

SECTION 15: Regulatory information

15.1. US Federal regulations

Methanol (67-56-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

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| | | | | |
|--|---|---|---|-----------------------------------|
| Methanol (67-56-1) | | | | |
| SARA Section 313 - Emission Reporting | | 1.0 % | | |
| 4-(2-Trimethoxysilylethyl)benzenesulfonyl azide (68479-60-7) | | | | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | | | | |
| Toluene (108-88-3) | | | | |
| 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 | | 1.0 % | | |
| 15.2. International regulations | | | | |
| Methanol (67-56-1) | | | | |
| Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Poisonous and Deleterious Substances Control Law Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical | | | | |
| 4-(2-Trimethoxysilylethyl)benzenesulfonyl azide (68479-60-7) | | | | |
| Listed on the Canadian DSL (Domestic Substances List) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) | | | | |
| Toluene (108-88-3) | | | | |
| Listed on the AICS (Australian Inventory of Chemical Substances) Listed on the Canadian DSL (Domestic Substances List) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Poisonous and Deleterious Substances Control Law Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical | | | | |
| 15.3. US State regulations | | | | |
| 4-(AZIDOSULFONYL)PHENETHYLTRIMETHOXYSILANE, 22-25% in methanol/toluene(68479-60-7) | | | | |
| U.S. - California - Proposition 65 - Carcinogens List | | No | | |
| U.S. - California - Proposition 65 - Developmental Toxicity | | No | | |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | | No | | |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | | No | | |
| Methanol (67-56-1) | | | | |
| 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 | Non-significant risk level (NSRL) |
| No | Yes | No | No | |
| 4-(2-Trimethoxysilylethyl)benzenesulfonyl azide (68479-60-7) | | | | |
| 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 | Non-significant risk level (NSRL) |
| No | No | No | No | |

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| Toluene (108-88-3) | | | | |
|---|---|---|---|-----------------------------------|
| 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 | Non-significant risk level (NSRL) |
| No | Yes | Yes | No | |
| Toluene (108-88-3) | | | | |

SECTION 16: Other information

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.

Full text of H-phrases::

| | |
|----------------------------------|---|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal) Category 3 |
| Acute Tox. 3 (Inhalation:vapour) | Acute toxicity (inhalation:vapor) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral) Category 3 |
| Aquatic Acute 3 | Hazardous to the aquatic environment - Acute Hazard Category 3 |
| Asp. Tox. 1 | Aspiration hazard Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| Flam. Liq. 3 | Flammable liquids Category 3 |
| Repr. 2 | Reproductive toxicity Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT RE 2 | Specific target organ toxicity (repeated exposure) Category 2 |
| STOT SE 1 | Specific target organ toxicity (single exposure) Category 1 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor |
| H301 | Toxic if swallowed |
| H304 | May be fatal if swallowed and enters airways |
| H311 | Toxic in contact with skin |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H331 | Toxic if inhaled |
| H336 | May cause drowsiness or dizziness |
| H361 | Suspected of damaging fertility or the unborn child |
| H370 | Causes damage to organs |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H402 | Harmful to aquatic life |

HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 4 Severe Hazard

Physical : 1 Slight Hazard

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4-(AZIDOSULFONYL)PHENETHYLTRIMETHOXYSilANE, 22-25% in methanol/toluene

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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