

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Number: SC-1110
Chemical name: γ -aminopropyltrimethoxysilane
CAS No.: 13822-56-5

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

Industrial.
Intermediate chemical

1.3 Details of the supplier of the safety data sheet

Manufactured/Supplied by Silsource Inc.
ADDRESS: 240 Mary Street, Port Perry, ON L9L 1B7
CHEMICAL EMERGENCY ONLY (PHONE): CANUTEC [24 Hr.] CANADA 888-226-8832 or 613-996-6666
CHEMTREC [24 Hr.] USA 1-800-262-8200

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Physical hazard

flammable liquid Category 4

Health hazard

Skin corrosion/irritation Category 1

Severe eye injury/eye irritation Category 1

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word : Danger

Hazard statement(s)

H227 Flammable liquid.

H314 Causes skin irritation and serious eye damage.

Precautionary statement(s)

P260 Keep away from dust/smoke/air/smog/steam/spray

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Reaction statement(s)

P301+P330+P331 IF SWALLOW: Rinse mouth, do not induce vomit.

P303 + P361+P353 IF ON SKIN OR HAIR: Remove all contaminated clothing. Wash with plenty of water/ soap.

P304 + P340 IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P362 Take off contaminated clothing and wash before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards not contributing to the classification

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS-No.	Chemical characteristics
γ-Aminopropyltrimethoxysilane	13822-56-5	Substance

3.2 Hazardous Ingredients

Chemical Name	CAS no.	Concentration
γ-Aminopropyltrimethoxysilane	13822-56-5	≥ 97.0%
Methyl Alcohol	67-56-1	≤ 3.0%

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Remove contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Flash point is about 83°C

5.2 Suitable extinguishing media

On large fires use dry chemical or foam. On small fires use CO₂, dry chemical or sand. Water can be used to cool fire exposed containers.

5.3 Special hazards arising from the substance or mixture

Be careful, it may decompose under fire or high temperature to produce toxic fumes.

5.4 Advice for firefighters

Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

5.5 Additional advice

Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid skin and eye contact. Keep container closed. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Use with adequate ventilation. Product evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control methyl alcohol exposures within exposure guidelines or use air-supplied or self-contained breathing apparatus. Do not get in eyes. Avoid skin contact. Avoid breathing vapor, mist, dust, or fumes. Keep container closed. Do not take internally. Remove contaminated clothing immediately. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Moisture sensitive.

7.3 Specific end uses

Apart from the uses mentioned in section 1 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Maximum allowable concentration

Component	CAS No.	Exposure Limits
γ-Aminopropyltrimethoxysilane	13822-56-5	See Methyl alcohol comments.
Methyl alcohol	67-56-1	China: TWA 25 mg/m ³ . STEL 50 mg/m ³ . Can be absorbed through the skin. OSHA PEL (final rule): TWA 200 ppm, 260 mg/m ³ and ACGIH TLV-skin: TWA 200ppm, STEL 250 ppm.

8.2 Exposure controls

Appropriate engineering controls

Provide safety shower and eyewash equipment. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wear protective boots

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state/form:	Liquid
Colour:	Colorless
pH:	no data available
Boiling point:	194°C
Melting point:	no data available
Flash point:	83°C (Closed cup)
Molecular weight:	179.3 g/mol
Ignition temperature:	no data available
Oxidizing properties:	No
Upper explosion limit:	no data available
Lower explosion limit:	no data available
Vapour pressure:	no data available
Vapor density:	No data available
Density/relative density:	1.01 g/cm ³ (25°C)
Solubility:	React with Water
Heat of combustion:	no data available
Viscosity (dynamic):	no data available

9.2 Other information:

no data available

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

no data available

10.2 Chemical stability

Stable under recommended storage conditions. Moisture sensitive.

10.3 Possibility of hazardous reactions

Conditions to avoid: Incompatible materials, ignition sources, excess heat, exposure to moist air.

Decomposition products: Water, moisture or humid air can cause hazardous vapors to form. Can react with strong oxidizing agents.

Hazardous Decomposition Products: Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Nitrogen oxides. Silicon dioxide.

Hazardous polymerization: Hazardous polymerization may occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Route of exposure: inhalation, skin contact and accidental ingestion

11.2 Signs and symptoms of excessive exposure:

Harmful if inhaled. May be harmful if swallowed. Causes serious eye damage. May cause skin irritation. May cause an allergic skin reaction.

11.3 Acute toxicity

chemical name	CAS no.	LD50 (Oral)	LD50 (Dermal)	LC50 (inhalation)
γ-Aminopropyltrimethoxysilane	13822-56-5	2,970 mg/kg (Rat)	11,300 mg/kg (Rat)	--

Potential health implications

Eyes: May cause irreversible damage and burns to the eyes

Skin: May cause mild irritation. Repeated skin contact may cause allergic skin reaction

Ingestion: May be harmful if swallowed.

Inhalation: Harmful if inhaled. Vapor may irritate nose and throat. Vapor overexposure may cause

11.4 Chronic toxicity

Organosilicon compounds are generally low in toxicity.

11.5 Other health hazards information

This material may release methanol in contact with moisture or moist air. Excessive methanol can lead to blindness and neurological effects.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity Effects:

Acute: Toxic to aquatic life.

Chronic: Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability Water:

This product hydrolyzes in water or humid air to release methanol and organic silicon compounds

12.3 Bioaccumulative potential: No bioaccumulation potential

12.4 Mobility in soil: No data available

12.5 Additional environmental information: No specific information

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of properly in accordance with local regulations

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 This product is not classified as dangerous by UN, IATA, IMDG

UN number

ADR/RID: --

IMDG: --

IATA: --

14.2 UN proper shipping name

ADR/RID: --

--

IMDG: --

--

IATA: --

--

14.3 Transport hazard class(es)

ADR/RID: --

IMDG: --

IATA: --

14.4 Packaging group

ADR/RID: --

IMDG: --

IATA: --

Special precautions for user

No data available

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

This data is offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use.

This SDS was prepared sincerely on the basis of the information we could obtain, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

This SDS is compliant with the GHS requirements outlined at http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/sds.html

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