SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Number: SC-1100

Chemical name: γ-AMINOPROPYLTRIETHOXYSILANE

CAS No.: 919-30-2

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]

Inflammable Liquid	Category 4
Acute toxicity, oral	Category 4
Skin corrosion/irritation	Category 1B
Severe eye injury/irritation	Category 1
Skin sensitization	Category 1

2.2 Label elements

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

Pictogram

Signal word : Danger

Hazard statement(s)

H227	Combustible liquid
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Reaction statement(s)

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage statement(s)

P405 Storage to be locked

Waste disposal

P501 Disposal of contents / containers in accordance with local regulations

2.3 Other hazards not contributing to the classification

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

CAS-No.	Chemical Name
919-30-2	γ-Amino propyl tri ethoxy silane

3.2 Ingredients

Chemical Name	CAS no.	Concentration
γ-AMINOPROPYLTRIETHOXYSILANE	919-30-2	≥ 98%
ETHANOL	64-17-5	≤ 2%

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 Extinguishing media

Suitable extinguishing media

Use water mist, alcohol-resistant foam, extinguishing powder or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), silicon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air. Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. 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

Handle in well-ventilated place. Wear suitable protective gear. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition. **No smoking**. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

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. Store under inert gas. 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 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

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.

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:	11.3 (500 g/l) (20°C)
Boiling point:	220°C (1013 hPa)
Melting point:	< -70°C
Flash point:	80 – 90°C (1013 hPa)
Autoignition temperature:	No data available
Oxidizing properties:	No
Upper explosion limit:	No data available
Lower explosion limit:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density/relative density:	0.95 g/cm^3(25°C)
Solubility:	React with water
Heat of combustion:	No data available
Viscosity:	No data available

9.2 Other information:

Solubility in water: Hydrolytic decomposition occurs. Explosion limits for released ethanol: 3.5-15% (V).

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

May decompose on exposure to moist air or water. Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Materials to avoid: Oxidizing material can cause a reaction. Water, moisture, or humid air can cause hazardous methanol vapor to form.

Hazardous thermal decomposition: Burning can produce the following combustion products: carbon oxides, oxides of silicon, carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Hazardous polymerization: In the presence of water, strong acid[s] or heat, polymerization reaction may occur

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents, Acids

10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Way of infection: inhalation, skin contact and ingestion

11.2 Signs and symptoms of excessive exposure :

If inhaled,it is harmful. If swallowing,it may be harmful. It causes severe eye damage,may cause skin allergies and may cause skin allergic reactions.

11.3 Acute toxicity

chemical name	CAS no.	Half lethal dose LD50 (through mouth)	Half lethal dose LD50 (through skin)	LC50 (swallowing)
γ -AMINOPROPYLTRIETHOXYSILANE	919-30-2	3500 mg/kg (mouse)	4000 mg/kg (rabbit)	--

Potential health implications

Inhalation may be harmful, may cause respiratory irritation.

Ingestion is harmful to the human body.

Skin may be harmed if absorbed through the skin. May cause skin irritation.

Eye exposure will cause eye irritation.

11.4 Chronic toxicity

Silicone compounds are generally less toxic.

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.

Toxicity registration of chemicals: vv6770000

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Species	Method	Exp. time	Result	Source
zebra fish (Brachydaniorerio)	Acute	96 Hr.	> 934 mg/l (LC50)	literature
Daphnia magna	Acute	48 Hr.	331 mg/l (EC50)	literature
Pseudokirchneriella subcapitata	Acute	72 Hr.	603 mg/l (EC50)	literature

12.2 Persistence and degradability

This product is hydrolyzed in water or moist air to release methanol and organosilicon compounds

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

Other adverse effects

no data available

12.5 Additional information

According to current knowledge adverse effects on water purification plants are not expected

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product:

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3267 IMDG: 3267 IATA: 3267

14.2 UN proper shipping name

ADR/RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (γ-Aminopropyltriethoxysilane)

IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (γ-Aminopropyltriethoxysilane)

IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (γ-Aminopropyltriethoxysilane)

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 EMS F-A, S-B

14.6 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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