SAFETY DATA SHEET
FILE NO.: SC-3200 DATE: 08/02/2022

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Number: SC-3200

Chemical name: [3-(2,3-epoxypropoxy)propyl]triethoxysilane

CAS No.: 2602-34-8

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

For industrial use, Coupling agent, Crosslinking agents, Surface modifier

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 (613) 996-6666 [24 Hr.]

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Not a hazardous substance according to Regulation (EC) No. 1272/2008.

2.2 Label elements

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

Statutory basis Labelling not required according to EU-CLP Ordinance (1272/2008).

2.3 Other hazards not contributing to the classification

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS-No.
[3-(2,3-epoxypropoxy)propyl]triethoxysilane	2602-34-8

Not a hazardous substance or mixture

3.2 Mixtures

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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 aerosol or mists are formed: If necessary: Provide with fresh air.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Rinse thoroughly with plenty of water keeping eyelid open. In case of persistent discomfort: Consult an ophthalmologist

If swallowed: Have the mouth rinsed with water. After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

Most important symptoms and effects, both acute and delayed

Symptoms

None known

Hazards

None known

Indication of any immediate medical attention and special treatment needed

After absorbing large amounts of substance: administration of activated charcoal. Acceleration of gastrointestinal passage

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Water spray jet, Dry powder, Carbon dioxide (CO2), Foam

Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance or mixture

Standard procedure for chemical fires.

5.4 Advice for firefighters

Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fi re extinguishing water must be disposed of in accordance with local regulations.

5.5 5.5 Additional advice

In case of fire: wear a self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Do not inhale vapors / aerosols.

6.2 Environmental precautions

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Fill into marked, sealable containers. To be disposed of in compliance with existing regulations.

6.4 Reference to other sections

Wear personal protective equipment; see section 8.

Disposal considerations; see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide good ventilation or extraction. Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion Normal measures for preventive fire protection.

Storage Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture.

7.3 Specific end uses no data available

Applications; see Section 1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Maximum allowable concentration

DNEL/DMEL values

Remarks: not necessary (see chapter 15)

PNEC values

Remarks: not necessary (see chapter 15)

8.2 Exposure controls

Engineering measures

Provide good ventilation or extraction.

Personal protective equipment

Respiratory protection

In case of dusts/vapors/aerosols being formed or if the limit values like TLV are exceeded: Use respiratory equipment with suitable filter (filter type ABEK) or wear a self-contained respiratory apparatus. Use only respiratory protection equipment with CE-symbol including four digit test number. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Note time limit for wearing respiratory protective equipment.

Hand protection

Glove material for example, butyl-rubber

Material thickness 0,5 mm

Break through time >= 480 min

Glove material for example, Fluorinated rubber (Viton)

Material thickness 0,4 mm

Break through time >= 480 min

Selection of protective gloves to meet the requirements of specific workplaces.

Suitability for specific workplaces should be clarified with protective glove manufacturers.

The information is based on tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials. Please observe that the daily duration of usage of a chemical protective glove is in practice far shorter due to the many influencing factors (e.g. temperature, mechanical strain on the glove material) than the permeation time determined acc. EN 374.

Eye protection

Safety glasses

Hygiene measures

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Remove contaminated or saturated clothing. Wash contaminated clothing before re-use.

Protective measures

Handle in accordance with good industrial hygiene and safety practice. The personal protective equipment used must meet the requirements of directive 89/686/EEC and amendments (CE certification). If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapors or aerosols. Avoid contact with skin and eyes.

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

Form:	Liquid
Colour:	Colorless
Physical state:	liquid (20°C) (1013 hPa)
Odor Threshold:	not determined
pH:	3.5 – 4.0 (1000 g/l) (20°C) method: DIN 38404-C5
Melting point/range:	< -70°C method: OECD TG 102
Boiling point/range:	270 °C (1013 hPa) Method: DIN 51 356
Flash point:	125°C Method: DIN EN ISO 2719 (Pensky-Martens, Closed Cup)
Evaporation rate:	not determined
Lower explosion limit:	not determined

Upper explosion limit:	not determined
Vapor pressure:	1.05 hPa (20°C)
Density:	1.006 g/cm3 (20°C) Method: DIN 51757
Water solubility:	not miscible
	decomposition by hydrolysis
Partition coefficient: n-octanol/water	log Pow: 2.0 (20°C) Method: QSAR
Auto-inflammability:	230°C (1013 hPa) Method: EC Method A.15
Thermal decomposition	> 276 °C
Viscosity, dynamic:	3.35 mPa.s (20°C) Method: DIN 53 015
Explosiveness Method:	440/2008/EC A.14
	not explosive

9.2 Other information:

Ignition temperature:	not determined

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts with: Alkalis, Acids, Amines

Exothermic reaction with: Peroxides

Conditions to avoid

Vapors can form explosive mixtures with air. In the presence of oxygen and heat, the ethanol forming during the reaction may produce acetaldehyde. Material may form acetaldehyde when heated with inorganic pigments in the presence of air.

Incompatible materials

alkalis, Amines, Acids, Peroxides, water

Hazardous decomposition products

Ethanol in case of hydrolysis. Alcohol formed by hydrolysis lowers the flash point of the product.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity: LD50 Rat: > 2000 mg/kg Method: OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity: LC50 Rat: > 5.3 mg/l / 4 hr. / dust/mist Method: OECD Test Guideline 403

Test substance: Structurally similar substance

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 Rabbit: > 2000 mg/kg Method: OECD Test Guideline 402

Test substance: Structurally similar substance

Assessment: The substance or mixture has no acute dermal toxicity

Skin irritation:	Rabbit	No skin irritation	Method: OECD Test Guideline 404
Eye irritation:	Rabbit	No eye irritation	Method: OECD Test Guideline 405

Sensitization

Maximization test guinea pig: Does not cause skin sensitization. Method: OECD Test Guideline 406

Repeated dose toxicity

Oral Rat / 90-day

Number of exposures:	7 days a week
NOAEL:	>= 1000 mg/kg
Method:	OECD TG 408
Test substance:	Structurally similar substance

Oral Rat / 28-day

Number of exposures:	5 days/weeks
NOAEL:	>= 1000 mg/kg
Method:	OECD Test Guideline 407
Test substance:	Structurally similar substance

Assessment of STOT single exposure

Assessment:	The substance or mixture is not classified as specific target organ toxicant, single exposure.

Assessment of STOT repeat exposure

Assessment:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Risk of aspiration toxicity:	No evidence of aspiration toxicity
Gentoxicity in vitro:	positive and negative
Gentoxicity in vivo:	positive and negative
Carcinogenicity:	No data available

Toxicity to reproduction

Oral Rat

NOAEL:	(No Observed Adverse Effect Level) of parents:

>= 400 mg/kg

Method:	OECD TG 414
Test substance:	Structurally similar substance

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish

LC50 Danio rerio (zebra fish):	> 100 mg/l / 96 h

Method: OECD TG 203

Toxicity in aquatic invertebrates

EC50 Daphnia magna (Water flea):	> 100 mg/l / 48 h

Method: OECD TG 202

Toxicity to algae

EC50 Desmodesmus subspicatus:	> 100 mg/l / 72 h

(green algae)

Method: OECD TG 201

NOEC Desmodesmus subspicatus	>= 100 mg/l / 72 h

(green algae)

Method: OECD TG 201

Toxicity to bacteria

NOEC	>= 1000 mg/l / 3 h

local activated sludge:

Method: OECD TG 209

12.2 Persistence and degradability Water:

Biodegradability

Exposure time: 28 d

Result: 53% Not readily biodegradable.

Method: OECD TG 301 F

12.3 Bioaccumulative potential:

Bioaccumulation low

12.4 Mobility in soil:

Mobility Adsorption on the floor: low

12.5 Additional environmental information:

Results of PBT and vPvB assessment: Not a PBT, vPvB substance according to the criteria of the REACH Regulation.

The data available does not necessitate identification concerning environmental hazard

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

Uncleaned packaging: Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations. Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number --

14.2 UN proper shipping name --

14.3 Transport hazard class(es) --

14.4 Packaging group --

Special precautions for user Yes

Not dangerous according to transport regulations.

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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