SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Number: SC-1120

Chemical name: 3-Aminopropylmethyldiethoxysilane

CAS No.: 3179-76-8

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

Industrial. 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]

Health hazard

Skin Sensitization	Category 1B
Serious eye damage	Category 1

2.2 Label elements

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

Pictogram

Signal word : Danger

Hazard statement(s)

H314	Causes severe skin burns and eye damage.

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

Precautionary statement (Storage):

P405	Store locked up.

Precautionary statement (Disposal):

P501	Dispose of contents/container in accordance with local regulation.

2.3 Other hazards not contributing to the classification

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS-No.
3-(diethoxymethylsilyl)propylamine	3179-76-8

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.

Take off all contaminated clothing immediately.

Inhalation:

If aerosol or mists are formed:

Move victims into fresh air.

Skin contact:

Wash off immediately with plenty of water.

Consult a doctor in the event of permanent skin irritation.

Eye contact:

With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes.

Continue rinsing process with eye rinsing solution.

Protect unharmed eye.

Call ambulance. (Cue: caustic burn of the eyes)

Immediate further treatment in eye clinic/by eye doctor. Continue rinsing eye until arrival at ophthalmic hospital.

Ingestion:

Do NOT induce vomiting.

Only when patient fully conscious:

Have patient drink plenty of water in small sips.

Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms:

None known

Indication of any immediate medical attention and special treatment needed

Therapy as for chemical burn.

If substance has been swallowed:

Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear.

If necessary, suck away leftover substance.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Flash point: 88°C

Suitable extinguishing media: Water spray, foam, Carbon dioxide (CO2), Dry powder

5.2 Unsuitable extinguishing media: high volume water jet

5.3 Special hazards arising from the substance or mixture

Hazardous fumes in fires, specific to the product: nitrogen oxides (NOx)

5.4 Advice for firefighters

Special protective equipment 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 fire extinguishing water must be disposed of in accordance with local regulations.

In case of fire: wear a self-contained respiratory apparatus

5.5 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. Ensure adequate ventilation.

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.

Suitable binder: sand (for damming up)

6.4 Reference to other sections

Wear personal protective equipment; see section 8.

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Application, processing: Provide good ventilation or extraction.

7.2 Conditions for safe storage, including any incompatibilities

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 further information available

Applications; see Section 1.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Maximum allowable concentration

No substance-specific limiting value being known.

8.2 Exposure controls

Engineering measures

Provide adequate ventilation.

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 our own 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
Close-fitting protective goggles (e.g. closed goggles)

Skin and body protection
Suitable protective clothing - Use disposable clothing if appropriate.

Hygiene measures
When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.
Remove immediately all contaminated 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form	liquid
Color:	colourless to yellowish
Physical state	liquid (20 °C) (1013 hPa)
Odor:	amine-like
Odor Threshold:	not determined
pH:	11 (20 g/l)(20°C)
Melting point/range	< -180 °C (1013 hPa)
	Method: OECD Test Guideline 102
Boiling point/range	ca. 202 °C (1013 hPa)
	Method: DIN 51 751
Flash point:	88°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:	3 hPa (55°C)
Density:	0.92 g/cm3 (20°C)
	Method;DIN 51757
Water solubility:	not miscible
	decomposition by hydrolysis
Partition coefficient n-octanol/water:	log Pow: 2,5 (20 °C)
	Method: QSAR-Method
Thermal decomposition:	not determined
Viscosity, dynamic :	2 mPa.s (20 °C)
	Method: DIN 53 015

Explosiveness:	not explosive

9.2 Other information:

Ignition temperature:	265°C
	Method: DIN 51 794

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

Exothermic reaction with: acids

Conditions to avoid

Protect from moisture.

Incompatible materials

Acids

Hazardous decomposition products

Methanol 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	
Acute inhalation toxicity	No data available	
Acute dermal toxicity	LD50 Rat: > 2000 mg/kg	
Skin irritation	Rabbit	
	Causes burns.	
Eye irritation	Rabbit	
	Corrosive.	
Test substance:	Structurally similar substance	
Sensitization	No data available	
Repeated dose toxicity	200 mg/kg	(OECD TG 408)
Assessment of STOT single exposure	No data available	
Assessment of STOT repeat exposure	No data available	
Risk of aspiration toxicity	No data available	
Gentoxicity in vitro	No data available	
Toxicity to reproduction	>= 600 mg/kg	(OECD TG 414)

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50	Danio rerio (zebra fish): > 934 mg/l / 96 h
	Test substance: Structurally similar substance
	Method: OECD TG 203
Toxicity in aquatic	EC50 Daphnia magna (Water flea): 331 mg/l / 48 h
Invertebrates	Test substance: Structurally similar substance
	Method: OECD TG 202
Toxicity to algae	EC50 Desmodesmus subspicatus (green algae):

> 1000 mg/l / 72 h
Test substance: Structurally similar substance
Method: OECD TG 201

12.2 Persistence and degradability

Biodegradability
Exposure time: 28 d
Result: 67 % Not readily biodegradable.
Test substance: Structurally similar substance
Method: (DOC; Die Away test - 79/831/EEC part C.4-A)

12.3 Bio-accumulative potential

Bioaccumulation: not bioaccumulative
log Pow: see chapter 9

12.4 Mobility in soil

Mobility: Absorption on the floor: low.

Results of PBT and vPvB assessment

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

Other adverse effects

Further Information

The data we have at our disposal do 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.

Contaminated packaging: Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

Waste Key Number

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

SECTION 14: TRANSPORT INFORMATION

14.1 Transport on land (ADR/RID/GGVSEB)

UN number	UN 3267
UN proper shipping name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-Aminopropyl-methyl-diethoxysilane)
Transport hazard class(es)	8
Packing group	II
Environmental hazards	-
Special precautions for user	Yes
ADR Tunnel Restriction Code:	(E)

Inland waterway transport (ADN/GGVSEB (Germany))

UN number:	UN 3267
UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (3-Aminopropyl-methyl-diethoxysilane)
Transport hazard class(es):	8

Packing group:	II
Environmental hazards:	-
Special precautions for user:	No

Air transport ICAO-TI/IATA-DGR

UN number:	UN 3267
UN proper shipping name:	Corrosive liquid, basic, organic, n.o.s. (3-Aminopropyl-methyldiethoxysilane)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	--
Special precautions for user:	Yes
IATA-C:	ERG-Code 8L
IATA-P:	ERG-Code 8L

Sea transport IMDG-Code/GGVSee (Germany)

UN number:	UN 3267
UN proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.(3-Aminopropyl-methyl-diethoxysilane)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	--
Special precautions for user:	Yes
EmS:	F-A,S-B

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

for transport approval see regulatory information

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
National legislation
Major Accident Hazard Legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
listing: not applicable

Chemical safety assessment
No substance-related safety assessment is necessary / has been conducted for this product.

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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