



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 **PRODUCT NAME:** SC-5221
CHEMICAL NAME/FAMILY: Dimethoxydimethylsilane
1.2 **IDENTIFIED USE:** CHEMICAL FOR SYNTHESIS
1.3 **MANUFACTURER:** Manufactured/Supplied by Silsource Inc.
ADDRESS: 240 Mary Street, Port Perry, Ontario, L9L 1B7
1.4 **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**
Physical hazards Flammable liquids Category 2
Health hazards Serious eye damage/eye irritation Category 2A
OSHA defined hazards Not classified.

2.2 **Label elements**
GHS Labelling
Pictogram  
Signal word : Danger
Hazard statement(s) Highly flammable liquid and vapor. Causes serious eye irritation.
Precautionary statement(s)
Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.
Response
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.
Storage Store in a well-ventilated place. Keep cool.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 **Hazard(s) not otherwise classified (HNOC)** None known.
Supplemental information None.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 **Substances**

Substance name	CAS number	Concentration (%)
Dimethoxydimethylsilane	1112-39-6	> 99.0
Methanol	67-56-1	< 1.0

3.2 **Mixtures** Not Relevant

SECTION 4: FIRST AID MEASURES

4.1 **First-aid measures after eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
4.2. **First-aid measures after skin contact** Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
4.3. **First-aid measures after inhalation** Move to fresh air. Call a physician if symptoms develop or persist.
4.4. **First-aid measures after ingestion** Rinse mouth. Call a poison center or a doctor if you feel unwell.
4.5 **Most important symptoms/effects, acute and delayed** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

4.6	Indication of immediate medical Attention and special treatment Needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
	General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

SECTION 5: FIRE-FIGHTING MEASURES

5.1	Suitable extinguishing media: Unsuitable extinguishing media:	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). Do not use water jet as an extinguisher, as this will spread the fire. Note: Water sprayed on burning material may generate methanol.
5.2	Special hazards arising from the chemical:	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
5.3	Special protective equipment and precautions for firefighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
5.4	Firefighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
5.5	Specific methods:	Use standard firefighting procedures and consider the hazards of other involved materials.
5.6	General fire hazards:	Highly flammable liquid and vapor.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
6.2	Environmental precautions:	Avoid discharge into drains, water courses or onto the ground.
6.3	Methods and materials for containment and cleaning up:	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to Containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
6.4	Reference to other sections:	For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1	Precautions for safe handling:	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
7.2	Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methanol (CAS 67-56-1)	PEL	260 mg/m ³ 200 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	325 mg/m ³ 250 ppm
	TWA	260 mg/m ³ 200 ppm

8.2 Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

8.3 Exposure guidelines

US - California OELs: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin

US - Minnesota Haz Subs: Skin designation applies

Methanol (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methanol (CAS 67-56-1) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Methanol (CAS 67-56-1) Can be absorbed through the skin.

8.4 Appropriate engineering

Controls: Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

8.5 Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Skin protection

Other Wear suitable protective clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

8.6 General hygiene

Considerations: When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state Liquid
Form Liquid
Colour Not Available.

Odour Not Available.

Odour Threshold Not Available.

pH Not Available.

Melting point/freezing point -112°F / -80°C

Initial Boiling point and boiling range 179.6°F / 82 °C

Flash point	17.6°F / -8.0°C
Evaporation rate	< 1 (Butyl Acetate = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not available.
Flammability limit – upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	>1 (25°C) (Air =1)
Relative density	0.865
Solubility(ies)	
Solubility (water)	Reacts
Partition Coefficient (n-Octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

9.2 Other safety information

Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity:	Material reacts slowly with water.
10.2	Chemical Stability:	Material is stable under normal conditions
10.3	Possibility of hazardous Reactions:	No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.3	Incompatible materials	Strong oxidizing agents.
10.6	Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products are not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on exposure routes		
	Ingestion:	Expected to be a low ingestion hazard.	
	Skin contact:	No adverse effects due to skin contact are expected.	
	Inhalation:	Prolonged inhalation may be harmful.	
	Eye contact:	Causes serious eye irritation.	
11.2	Symptoms related to the physical, chemical and toxicological characteristics:		Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
11.3	Information on toxicological effects		
	Acute toxicity		
	Components	Species	Test Results
	Dimethoxydimethylsilane (CAS 1112-39-6)		
	Acute		
	Inhalation		
	LC50	Rat	21.35 mg/l, 4 hours
	Oral		
	LD50	Rat	2554 mg/kg
	Skin corrosion/irritation		
	Prolonged skin contact may cause temporary irritation.		
	Serious eye damage/eye irritation		
	Causes serious eye irritation.		
	Respiratory or skin sensitization		
	Respiratory sensitization		
	Not a respiratory sensitizer.		
	Skin sensitization		
	This product is not expected to cause skin sensitization.		
	Germ cell mutagenicity		
	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
	Carcinogenicity		
	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.		
	IARC Monographs. Overall Evaluation of Carcinogenicity		
	Not listed.		

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - Aspiration hazard	Not classified.
Chronic effects	Not an aspiration hazard. Prolonged inhalation may be harmful.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Methanol (CAS 67-56-1)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Daphnia magna	> 10000 mg/l, 48 hours
Fish	LC50 Bluegill (Lepomis macrochirus)	15400 mg/l, 96 hours

12.2. Persistence and degradability: No data is available on the degradability of this product.

12.3. Bioaccumulative potential:

Partition coefficient n-octanol / water (log Kow)

Methanol (CAS 67-56-1) -0.77

12.4. Mobility in soil: No data available

12.5. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Disposal instructions:** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose Of contents/container in accordance with local/regional/national/international regulations.
- 13.2 Local disposal regulations:** Dispose in accordance with all applicable regulations.
- 13.3 Hazardous waste code:** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
- 13.4 Waste from residues / Unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
- 13.5 Contaminated packaging:** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

14.1 DOT

UN number: UN1993
UN proper shipping name: Flammable liquids, n.o.s. (Dimethoxydimethylsilane)
Transport hazard class(es):
 Class 3
 Subsidiary risk -
 Label(s) 3

Packing group: II
Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
Special provisions: IB2, T7, TP1, TP8, TP28
Packaging exceptions: 150
Packaging non bulk: 202
Packaging bulk: 242

IATA
UN number: UN1993
UN proper shipping name: Flammable liquid, n.o.s. (Dimethoxydimethylsilane)
Transport hazard class(es):
 Class 3
 Subsidiary risk -
Packing group: II

Environmental hazards: No.
ERG Code: 3H
Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
IMDG
UN number UN1993
UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (DIMETHOXYDIMETHYLSILANE)
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group: II
Environmental hazards
Marine pollutant: No.
EmS F-E, S-E
Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.

SECTION 15: REGULATORY INFORMATION

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methanol (CAS 67-56-1) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard Yes
Delayed Hazard No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Methanol	67-56-1	< 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methanol (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act: Not regulated.
(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

Methanol (CAS 67-56-1)

US. New Jersey Worker and Community Right-to-Know Act

Methanol (CAS 67-56-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Methanol (CAS 67-56-1)

US. Rhode Island RTK

Methanol (CAS 67-56-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other Reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Methanol (CAS 67-56-1)

International Inventories

AICS	DSL	NDSL	IECSC	EINECS	ELINCS	ENCS	ECL	NZIoC	PICCS
✓	X	✓	✓	✓	X	✓	✓	✓	✓

AICS	Australia Inventory of Chemical Substances.
DSL	Canadian Domestic Substances List.
NDSL	Canadian Non-Domestic Substances List (NDSL)
IECSC	China Inventory of Existing Chemical Substances.
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances (ELINCS)
ENCS	Japan Inventory of Existing And New Chemical Substances.
ECL	Korea Existing Chemicals List
NZIoC	New Zealand Inventory of Chemicals.
PICCS	Philippines Inventory of Chemicals and Chemical Substances.

Note:

“✓” indicates this product complies with the inventory requirements administered by the governing country(s).
 “X” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

HMIS® ratings
 Health: 2
 Flammability: 3
 Physical hazard: 1

List of abbreviations
 PEL: Permissible Exposure Limit.
 STEL: Short term exposure limit.
 TWA: Time weighted average.

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 obtained, 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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