Safety Data Sheet

SpecSilane 40 WB

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	SpecSilane 40 WB
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Penetrating sealer for concrete surfaces
1.3 Company Name:	**SpecChem**
Company Address:	1511 Baltimore Ave; Suite 600
Company Address Cont:	Kansas City, MO 64108
Business Phone:	(816) 968-5600
Website:	www.specchemllc.com
1.4 Emergency Telephone Number:	**VelocityEHS** 1-(800)255-3924 (North America) +1-813-248-0585 (International) 1-300-954-583 (Australia) 0-800-591-6042 (Brazil) 400-120-0751 (China) 000-800-100-4086 (India) 800-099-0731 (Mexico)
Date of Last Revision:	October 16, 2015
Date of Current Revision:	July 1, 2018

SECTION 2 – HAZARDS IDENTIFICATION

US DOT Symbols: Warning

EU and GHS Symbols:

Signal Word: Warning

Components Contributing to Classification: Triethoxyoctylsilane, Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term

2.2 Label Elements:

GHS Hazard Classifications:
Skin Irritation – Category 2
Eye Irritation – Category 2A
Reproductive toxicity – Category 2

Hazard Statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing spray.
P264 Wash skin thoroughly after handling.

Response Statements:	P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage Statements:	Store locked up.
Disposal Statements:	Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Percent	CAS No.
Triethoxyoctylsilane	>= 10 - < 20	2943-75-1
Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term	>= 1 - < 5	68554-54-1
Ethoxylated lauryl alcohol	>= 1 - < 5	9002-92-0
Octamethylcyclotetrasiloxane	>= 0.1 - < 1	556-67-2
Methanol	>= 0.1 - < 1	67-56-1
Hexadecyltrimethyl ammonium chloride	>= 0.1 - < 1	112-02-7
Water	30 – 90	7732-18-5
Tetradodium EDTA	<.1	64-02-8
Ethyleneediaminetriacetic acid, trisodium salt	<.1	19019-43-3

Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

General Advice: In the case of accident or if you feel unwell, seek medical advice

immediately. When symptoms persist or in all cases of doubt seek medical advice.

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.

Inhalation : If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Ingestion : If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child.

Protection of first-aiders:

First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

Fire Extinguishing Materials:

Suitable extinguishing media: Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO2).

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides, Silicon oxides, Formaldehyde, Nitrogen oxides (NOx)

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

Environmental Precautions:
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation: Use only with adequate ventilation.

Advice on safe handling: Do not get on skin or clothing. Avoid inhalation of vapor or mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Keep away from water. Protect from moisture. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage: Keep in properly labeled containers. Store in accordance with the particular national regulations.

Materials to avoid: Do not store with the following product types: Strong oxidizing agents

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS-No.	Value Type (Form of Exposure)	Control parameters/Permissible concentration	Basis
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	DCC OEL
Methanol	67-56-1	TWA STEL TWA ST	200 ppm 250 ppm 200 ppm 260 mg/m3 250 ppm 325 mg/m3	ACGIH ACGIH NIOSH REL NIOSH REL OSHA Z-1

		TWA	200 ppm 260 mg/m3	

Hazardous components without workplace control parameters:

Ingredients	CAS-No.
Triethoxyoctylsilane	2943-75-1
Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term	68554-54-1
Ethoxylated lauryl alcohol	9002-92-0
Hexadecyltrimethyl ammonium chloride	112-02-7

Occupational exposure limits of decomposition products

Ingredients	CAS-No.	Value Type (Form of Exposure)	Control parameters/Permissible concentration	Basis
Methanol	67-56-1	TWA STEL TWA ST TWA	200 ppm 250 ppm 200 ppm 260 mg/m3 250 ppm 325 mg/m3 200 ppm 260 mg/m3	ACGIH ACGIH NIOSH REL NIOSH REL OSHA Z-1
Ethanol	64-17-5	TWA TWA STEL	1,000 ppm 1,900 mg/m3 1,000 ppm 1,900 mg/m3 1,000 ppm	OSHA Z-1 ACGIH

Biological occupational exposure limits

Ingredients	CAS-No.	Control Parameters	Biological Specimen	Basis	Permissible Concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (as soon as possible after exposure)	15 mg/l	ACGIH BEI

Respiratory Protection:

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators

	against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Eye Protection:	Wear the following personal protective equipment: Safety goggles
Hand Protection:	Impervious gloves.
Body Protection:	Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:
Appearance (Physical State and Color): white, milky liquid
Odor: slight
Odor Threshold: No data available
pH: No data available
Melting/Freezing Point: No data available
Boiling Point: > 35°C
Flash Point: > 100°C
Evaporation Rate: No data available
Flammability (Solid; Gas): Not applicable
Upper/Lower Flammability or Explosion Limits: No data available
Vapor Pressure (mm Hg @ 20°C (68° F): No data available
Vapor Density: No data available
Relative Density: 1.01
Specific Gravity: No data available
Solubility in Water: Not miscible
Weight per Gallon: No data available
Partition Coefficient (n-octanol/water): No data available
Auto-Ignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: 50 mPa.s
9.2 Other Information: No data available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity: This product is not reactive.
10.2 Stability: Stable under conditions of normal storage and use.
10.3 Possibility of Hazardous Reactions: Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air. Hazardous decomposition products will be formed at elevated temperatures.

10.4 Conditions to Avoid: Exposure to moisture
10.5 Incompatible Substances: Oxidizing agents: water.
10.6 Hazardous Decomposition Products: Methanol, Ethanol.

SECTION 11 – TOXICOLOGY INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity :	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity :	Acute toxicity estimate : > 40 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method
Acute dermal toxicity :	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Ingredients:
Triethoxyoctylsilane:

Acute oral toxicity :	LD50 (Rat): > 5,110 mg/kg Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity :	LD50 (Rat): 6,730 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on test data

Ethoxylated lauryl alcohol:

Acute oral toxicity :	LD50 (Rat): > 2,000 mg/kg Remarks: Based on data from similar materials
Acute inhalation toxicity :	LC50 (Rat): > 1.6 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from similar materials
Acute dermal toxicity :	LD50 (Rat): > 2,000 mg/kg Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:

Acute oral toxicity :	LD50 (Rat): > 4,800 mg/kg Assessment: The substance or mixture has no acute oral toxicity Remarks: Based on test data
Acute inhalation toxicity :	LC50 (Rat): 2975 ppm

	Exposure time: 4 h Test atmosphere: vapor Assessment: The substance or mixture has no acute inhalation toxicity Remarks: Based on test data
Acute dermal toxicity :	LD50 (Rabbit): > 2.5 ml/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on test data

Methanol:

Acute oral toxicity :	Acute toxicity estimate (Humans): 300 mg/kg Method: Expert judgment
Acute inhalation toxicity :	Acute toxicity estimate (Humans): 3 mg/l Test atmosphere: vapor Method: Expert judgment
Acute dermal toxicity :	Acute toxicity estimate (Humans): 300 mg/kg Method: Expert judgment

Hexadecyltrimethyl ammonium chloride:

Acute oral toxicity :	LD50 (Rat): 699 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity :	LD50 (Rabbit): 528 mg/kg Method: OECD Test Guideline 402 Remarks: Based on data from similar materials

Skin corrosion/irritation
Causes skin irritation.
Ingredients:
Triethoxyoctylsilane:
Species: Rabbit
Result: Skin irritation
Remarks: Based on test data

Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term:
Result: Skin irritation
Remarks: Based on data from similar materials

Ethoxylated lauryl alcohol:
Result: No skin irritation
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Species: Rabbit
Result: No skin irritation
Remarks: Based on test data

Methanol:
Species: Rabbit
Result: No skin irritation

Hexadecyltrimethyl ammonium chloride:
Species: Rabbit
Result: Corrosive after 1 to 4 hours of exposure
Remarks: Based on data from similar materials

Serious eye damage/eye irritation
Causes serious eye irritation.
Ingredients:
Triethoxyoctylsilane:
Species: Rabbit
Result: No eye irritation
Remarks: Based on test data

Dimethyl siloxane with aminoethylaminopropyl silsesquioxane, hydroxy-term:
Result: Irritation to eyes, reversing within 21 days
Remarks: Based on data from similar materials

Ethoxylated lauryl alcohol:
Result: Irreversible effects on the eye
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Species: Rabbit
Result: No eye irritation
Remarks: Based on test data

Methanol:
Species: Rabbit
Result: No eye irritation

Hexadecyltrimethyl ammonium chloride:
Species: Rabbit
Result: Irreversible effects on the eye

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.
Ingredients:
Ethoxylated lauryl alcohol:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Assessment: Does not cause skin sensitization.
Test Type: Maximization Test (GPMT)
Species: Guinea pig

Remarks: No known sensitising effect.
Based on test data

Methanol:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative

Hexadecyltrimethyl ammonium chloride:
Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity
Not classified based on available information.
Ingredients:
Triethoxyoctylsilane:

Genotoxicity in vitro :	Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative Remarks: Based on test data

Ethoxylated lauryl alcohol:

Genotoxicity in vitro :	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative

Octamethylcyclotetrasiloxane:

Genotoxicity in vitro :	Test Type: Bacterial reverse mutation assay (AMES) Result: negative Remarks: Based on test data Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative Remarks: Based on test data Test Type: Chromosome aberration test in vitro Result: negative Remarks: Based on test data Test Type: In vitro sister chromatid exchange assay in mammalian cells Result: negative Remarks: Based on test data Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro) Result: negative Remarks: Based on test data
Genotoxicity in vivo :	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Test species: Rat Application Route: inhalation (vapor)

Result: negative
Remarks: Based on test data
Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on test data

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

Methanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Hexadecyltrimethyl ammonium chloride:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity

Not classified based on available information.

Ingredients:

Methanol:

Species: Mouse
Application Route: inhalation (vapor)
Exposure time: 18 Months
Method: OECD Test Guideline 453
Result: negative

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Ingredients:
Triethoxyoctylsilane:

Effects on fertility : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat, male and female
Application Route: Ingestion
Symptoms: No effects on fertility.
Remarks: Based on test data

Effects on fetal development : Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat, male and female
Application Route: Ingestion
Symptoms: No effects on fetal development.
Remarks: Based on test data

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Octamethylcyclotetrasiloxane:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat, male and female
Application Route: inhalation (vapor)
Symptoms: Effects on fertility.
Remarks: Based on test data

Effects on fetal development : Test Type: Prenatal development toxicity study (teratogenicity)
Species: Rabbit
Application Route: inhalation (vapor)
Symptoms: No effects on fetal development.
Remarks: Based on test data

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Methanol:

Effects on fertility : Test Type: Fertility/early embryonic development
Species: Mouse
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: positive
Remarks: The effects were seen only at maternally toxic doses.

Hexadecyltrimethyl ammonium chloride:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion

	Method: OECD Test Guideline 416 Result: negative Remarks: Based on data from similar materials
Effects on fetal development :	Test Type: Embryo-fetal development Species: Rabbit Application Route: Skin contact Result: negative

STOT-single exposure
Not classified based on available information.
Ingredients:
Methanol:
Target Organs: Eyes, Central nervous system
Assessment: Causes damage to organs.

STOT-repeated exposure
Not classified based on available information.
Ingredients:
Triethoxyoctylsilane:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.
Octamethylcyclotetrasiloxane:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.
Routes of exposure: inhalation (vapor)
Assessment: No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.
Routes of exposure: Skin contact
Assessment: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less

Repeated dose toxicity
Ingredients:
Triethoxyoctylsilane:
Species: Rat
Application Route: Ingestion
Remarks: Based on test data
Ethoxylated lauryl alcohol:
Species: Rat
NOAEL: >= 100 mg/kg
Application Route: Ingestion
Exposure time: 90 d
Method: OECD Test Guideline 408
Remarks: Based on data from similar materials
Octamethylcyclotetrasiloxane:
Species: Rat
Application Route: Ingestion
Remarks: Based on test data

Species: Rat
Application Route: inhalation (vapor)
Remarks: Based on test data
Species: Rabbit
Application Route: Skin contact
Remarks: Based on test data
Methanol:
Species: Rat
NOAEL: 1.06 mg/l
Application Route: inhalation (vapor)
Exposure time: 90 d
Hexadecyltrimethyl ammonium chloride:
Species: Rat
NOAEL: 300 mg/kg
Application Route: Ingestion
Exposure time: 28 d
Aspiration toxicity
Not classified based on available information.
Further information
Ingredients:
Triethoxyoctylsilane:
Remarks: Findings from a combined repeated-dose toxicity study with reproductive/ developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.
Octamethylcyclotetrasiloxane:
Remarks: Results from a 2 year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Based on the available information on its potential to cause harm to human health, Health Canada, in a 2008 screening assessment, has concluded that octamethylcyclotetrasiloxane is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (http://www.ec.gc.ca/eseees/default.asp?lang=En&n=2481B508-1). Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:

Ingredients:
Triethoxyoctylsilane:

Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia sp.): > 0.049 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: No toxicity at the limit of solubility.

Toxicity to algae:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.13 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: No toxicity at the limit of solubility.
Ethoxylated lauryl alcohol:	
Toxicity to fish :	LC50 (Danio rerio (zebra fish)): > 1 - 10 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae :	EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l Exposure time: 72 h Remarks: Based on data from similar materials NOEC (Pseudokirchneriella subcapitata (green algae)): > 0.1 - 1 mg/l Exposure time: 72 h Remarks: Based on data from similar materials
M-Factor (Acute aquatic toxicity :	1
Toxicity to fish (Chronic toxicity) :	NOEC (Lepomis macrochirus (Bluegill sunfish)): > 0.1 - 1 mg/l Exposure time: 30 d Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC (Daphnia magna (Water flea)): > 0.1 - 1 mg/l Exposure time: 21 d Remarks: Based on data from similar materials
Octamethylcyclotetrasiloxane:	
Toxicity to fish :	LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.022 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia sp.): > 0.015 mg/l Exposure time: 48 h Remarks: No toxicity at the limit of solubility.
Toxicity to algae :	EC50 (Pseudokirchneriella subcapitata (green algae)): >0.022 mg/l Exposure time: 96 h Remarks: No toxicity at the limit of solubility. NOEC (Pseudokirchneriella subcapitata (green algae)): 0.022 mg/l Exposure time: 96 h
Toxicity to fish (Chronic toxicity) :	NOEC (Oncorhynchus mykiss (rainbow trout)): >=0.0044 mg/l Remarks: No toxicity at the limit of solubility.
Toxicity to daphnia and other	

aquatic invertebrates (Chronic toxicity):	NOEC (Daphnia sp.): > 0.0079 mg/l Exposure time: 21 d Remarks: No toxicity at the limit of solubility.
M-Factor (Chronic aquatic toxicity) :	1
Toxicity to bacteria :	IC50: > 10,000 mg/l Method: ISO 8192
Ecotoxicology Assessment	
Chronic aquatic toxicity :	May cause long lasting harmful effects to aquatic life.
Methanol:	
Toxicity to fish :	LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l Exposure time: 96 h
Toxicity to daphnia and other Aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h
Toxicity to algae :	EC50 (Pseudokirchneriella subcapitata (green algae)): 22,000 mg/l Exposure time: 96 h Method: OPPTS 850.5400
Toxicity to fish (Chronic toxicity):	NOEC (Oryzias latipes (Orange-red killifish)): 15,800 mg/l Exposure time: 200 h
Toxicity to bacteria :	EC50: 20,000 mg/l Exposure time: 15 h
Hexadecyltrimethyl ammonium chloride:	
Toxicity to fish :	LC50 (Danio rerio (zebra fish)): 0.19 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other Aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): 0.09 mg/l Exposure time: 48 h Remarks: Based on data from similar materials
Toxicity to algae:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0.05 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 EC10 (Pseudokirchneriella subcapitata (green algae)): 0.047 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity) :	10
Toxicity to fish (Chronic toxicity) :	NOEC (Pimephales promelas (fathead minnow)): 32.2 µg/l Exposure time: 28 d Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic Invertebrates (Chronic toxicity):	NOEC (Daphnia magna (Water flea)): 6.8 µg/l Exposure time: 21 d

Remarks: Based on data from similar materials

M-Factor (Acute aquatic toxicity): 1
Toxicity to bacteria : EC50 (Pseudomonas putida): 0.96 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8

Persistence and degradability
Ingredients:
Triethoxyoctylsilane:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 31.5 %
Method: OECD Test Guideline 301D
Remarks: Based on test data

Ethoxylated lauryl alcohol:
Biodegradability : Result: rapidly degradable
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 3.7 %
Exposure time: 28 d
Method: OECD Test Guideline 310
Stability in water : Degradation half life: 69.3 - 144 h (24.6 °C) pH: 7
Method: OECD Test Guideline 111

Methanol:
Biodegradability : Result: Readily biodegradable.
Biodegradation: 95 %
Exposure time: 20 d

Hexadecyltrimethyl ammonium chloride:
Biodegradability : Result: Readily biodegradable.
Biodegradation: 93.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential
Ingredients:
Triethoxyoctylsilane:
Partition coefficient: n- octanol/water : log Pow: 6.41
Method: OECD Test Guideline 117

Ethoxylated lauryl alcohol:
Bioaccumulation : Bioconcentration factor (BCF): < 500
Remarks: Based on data from similar materials

Octamethylcyclotetrasiloxane:
Partition coefficient: n- octanol/water: log Pow: 6.48 (25.1 °C)

Methanol:
Bioaccumulation : Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): < 10
Partition coefficient: n- octanol/water: log Pow: -0.77

Hexadecyltrimethyl ammonium chloride:

Bioaccumulation :	Species: Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 33 - 160 Remarks: Based on data from similar materials

Mobility in soil
No data available

Other adverse effects
Octamethylcyclotetrasiloxane:

Results of PBT and vPvB assessment:	Remarks: Octamethylcyclotetrasiloxane (D4) meets the current REACh Annex XIII criteria for PBT and vPvB. In Canada, D4 has been assessed and deemed to meet the PiT criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:	Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.
13.2 EU Waste Code:	Not determined

SECTION 14 - TRANSPORTATION INFORMATION

14.1 U.S. Department of Transportation (DOT) Shipping Regulations:
This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

UN Identification Number:	Not Regulated
Proper Shipping Name:	None
Hazard Class Number and Description:	None
Packing Group:	None
DOT Label(s) Required:	None
North American Emergency Response Guidebook Number:	None

14.2 Environmental Hazards:

Marine Pollutant:	The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.3 Special Precaution for User: None

14.4 International Air Transport Association Shipping Information (IATA): This product is considered as dangerous goods.

14.5 International Maritime Organization Shipping Information (IMO):

UN Identification Number: Not regulated
Proper Shipping Name: None
Hazard Class Number and Description: None
Packing Group: None
EMS-No: None

SECTION 15 – REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methanol	67-56-1	5000	*
Acetaldhyde	75-07-0	1000	*
2-Butenal	4170-30-3	100	*

*: Calculated RQ exceeds reasonably attainable upper limit

SARA 304 Extremely Hazardous Substances Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
2-Butenal	4170-30-3	100	*
Vinyl acetate	108-05-4	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis)

Pennsylvania Right To Know

Dimethyl, methoxyphenyl siloxane with phenyl silsesquioxane methoxy-terminated	68957-04-0	30 - 50 %
Water	7732-18-5	30 - 50 %
Triethoxyoctylsilane	2943-75-1	10 - 20 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	10 - 20 %
Methanol	67-56-1	0.1 - 1 %
Acetaldehyde	75-07-0	0 - 0.1 %

New Jersey Right To Know

Dimethyl, methoxyphenyl siloxane with phenyl silsesquioxane methoxy-terminated	68957-04-0	30 - 50 %
Water	7732-18-5	30 - 50 %

Triethoxyoctylsilane	2943-75-1	10 - 20 %
Dimethyl siloxane, hydroxy-terminated	70131-67-8	10 - 20 %
Dimethyl siloxane with aminoethylaminopro-pyl silsesquioxane, hydroxy-term	68554-54-1	1 - 5 %
Methanol	67-56-1	0.1 - 1 %

California Prop 65 WARNING! This product contains a chemical known in the State of California to cause cancer.

Acetaldehyde 75-07-0

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

Methanol 67-56-1

The ingredients of this product are reported in the following inventories:

NZIoC :	All ingredients listed or exempt.
AICS :	All ingredients listed or exempt.
IECSC :	All ingredients listed or exempt.
KECI :	All ingredients listed, exempt or notified.
PICCS :	All ingredients listed or exempt.
DSL :	This product contains one or more substances which are not on the Canadian Domestic Substances List (DSL). Import of this product into Canada has volume limitations. For volume limits please consult Dow Corning Regulatory Compliance.
REACH :	Consult your local Dow Corning office.
TSCA :	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
ENCS/ISHL :	All components are listed on ENCS/ISHL or exempted from inventory listing.

Inventories: AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16 – OTHER INFORMATION

Date of Printing: July 1, 2018

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. SpecChem assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, SpecChem assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET