



**SAFETY DATA SHEET****Protectosil® AQUA-TRETE® CONCENTRATE**

Material no.	Version	4.0 / US
Specification	Revision date	05/08/2015
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Signal word	Warning
Hazard statement	H226 - Flammable liquid and vapour. H315 - Causes skin irritation.
Precautionary statement Prevention	P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 - Keep container tightly closed. P240 - Ground/bond container and receiving equipment. P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P264 - Wash skin thoroughly after handling. P280 - Wear protective gloves/ eye protection/ face protection.
Precautionary statement Reaction	P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P332 + P313 - If skin irritation occurs: Get medical advice/ attention. P362 - Take off contaminated clothing and wash before reuse. P370 + P378 - In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.
Precautionary statement Storage	P403 + P235 - Store in a well-ventilated place. Keep cool.
Precautionary statement Disposal	P501 - Dispose of contents/ container to an approved waste disposal plant.

### 2.3. Other hazards

None known.

## 3. Composition/information on ingredients

<b>• NJTSR No.56705700001-5374P</b>		<b>&gt;= 60% - &lt;= 100%</b>
CAS-No.	Trade Secret	
Flammable liquids		Category 3
Skin irritation		Category 2
<b>• Methanol</b>		<b>&gt;= 0.1% - &lt; 1%</b>
CAS-No.	67-56-1	
Flammable liquids		Category 2
Acute toxicity (Oral)		Category 3
Acute toxicity (Inhalation)		Category 3
Acute toxicity (Dermal)		Category 3
Specific target organ toxicity - single exposure		Category 1

## 4. First aid measures

### 4.1. Description of first aid measures

#### Inhalation

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

#### Skin contact

Flush skin with plenty of water. Remove contaminated clothing. Obtain medical attention if irritation develops or persists.

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**Eye contact**

In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops.

**Ingestion**

If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms and effects, both acute and delayed****Symptoms**

None known

**Hazards**

None known

**4.3. Indication of any immediate medical attention and special treatment needed**

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

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**5. Fire-fighting measures****5.1. Extinguishing media**

Suitable extinguishing media: Use water spray or fog, foam, dry chemical or CO<sub>2</sub>.

Unsuitable extinguishing media: None known.

**5.2. Special hazards arising from the substance or mixture**

Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

**5.3. Advice for firefighters**

Containers can build up pressure if exposed to heat (fire). Cool with water spray. As in any fire, wear self-contained, pressure-demand breathing apparatus (MSHA-NIOSH approved or equivalent) and full protective gear.

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

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**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

**6.2. Environmental precautions**

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

**6.3. Methods and material for containment and cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**Additional advice**

Remove sources of ignition and ventilate area.

Run off may create fire or explosion hazard in sewer.

Assure sufficient ventilation.

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**7. Handling and storage****7.1. Precautions for safe handling**

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Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Ground and bond containers when transferring material. Use explosion-proof equipment. Follow all MSDS/label precautions even after the container is emptied because it may retain product residues. Wash thoroughly after handling. Vapors may spread long distances and travel to areas away from the work site before igniting or flashing back to the vapor source.

Use non-sparking equipment when the level of vapors and/or mists can exceed the explosive limit, especially in areas with poor ventilation. Wear personal protective equipment; see section 8.

## 7.2. Conditions for safe storage, including any incompatibilities

### Advice on protection against fire and explosion

This material may have a low electrical conductivity and therefore may accumulate dangerous levels of static electricity. An ignitable vapor-air mixture can form inside storage tanks.

The user must be sure to dissipate static charge by careful bonding and grounding of all equipment and personnel involved in fluid transfer with continuity checks to prove effectiveness. Additional precautions against fire and explosion are the use of inert gas to purge vapor space; dip-pipes while filling vessels, especially lined vessels; grounded tank level floats; reduced flow velocity; self-closing valves on transfer lines and flame arrestors in vent lines.

Additional guidance on fire and explosion protection may be found in various consensus standards, including NFPA 30, 69 and 77 and API 2003 as well as OSHA regulation 29CFR1910.106.

Follow all MSDS/label precautions even after container is emptied because it may retain product residues.

### Storage

Keep containers tightly closed in a cool, well-ventilated place.

Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

• Methanol		
CAS-No.	67-56-1	
Control parameters	200 ppm	Time Weighted Average (TWA):(ACGIH)
Control parameters	250 ppm	Short Term Exposure Limit (STEL):(ACGIH)
Control parameters		Skin designation:(ACGIH)
	Can be absorbed through the skin.	
Control parameters	200 ppm 260 mg/m <sup>3</sup>	Permissible exposure limit:(OSHA Z1)
Control parameters	200 ppm 260 mg/m <sup>3</sup>	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)
Control parameters	1000 ppm	Ceiling Limit Value:(US CA OEL)
Control parameters	250 ppm 325 mg/m <sup>3</sup>	Short Term Exposure Limit (STEL):(US CA OEL)
Control parameters		Skin designation:(US CA OEL)
	Can be absorbed through the skin.	
Control parameters	200 ppm 260 mg/m <sup>3</sup>	Time Weighted Average (TWA):(TN OEL)
Control parameters	250 ppm 325 mg/m <sup>3</sup>	Short Term Exposure Limit (STEL):(TN OEL)
Control parameters		Skin designation:(TN OEL)

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Can be absorbed through the skin.

**8.2. Exposure controls****Engineering measures**

Use this product preferably in a closed system, or use process enclosures, local exhaust ventilation or other engineering controls to minimize airborne exposure.

**Personal protective equipment****Respiratory protection**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

**Hand protection**

Use impermeable gloves.

**Eye protection**

Use chemical splash goggles or face shield.

**Skin and body protection**

A safety shower and eye wash fountain should be readily available.

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

**9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

physical state	liquid
Colour	clear
Form	liquid
Odour	aromatic
Odour Threshold	no data available
pH	not determined
Melting point/range	no data available
Boiling point/range	137 °C
Flash point	33.89 °C
Method:	Pensky-Martens C.C.
Evaporation rate	no data available
Flammability (solid, gas)	no data available
Lower explosion limit	not determined
Upper explosion limit	not determined
Vapour pressure	not applicable

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Relative density	0.93
Water solubility	negligible reacts slowly with water
Partition coefficient: n-octanol/water	no data available
Autoignition temperature	no data available
Thermal decomposition	no data available
Viscosity, dynamic	no data available
Viscosity, kinematic	no data available

**9.2. Other information**

Explosiveness	Vapors can form explosive mixtures with air.
% VOC (gm/l)	50

**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**

Possibility of hazardous reactions No dangerous reactions known.

**10.4. Conditions to avoid**

Avoid high temperatures and sources of ignition.

**10.5. Incompatible materials**

Avoid contact with acids and oxidizing agents., Water

**10.6. Hazardous decomposition products**

Silicone polymers., Methanol in case of hydrolysis.

Stable under normal conditions.

Product will not undergo hazardous polymerization.

**11. Toxicological information****11.1. Information on toxicological effects****Toxicological information on components****Trimethoxypropylsilane**

Acute oral toxicity	LD50 Rat: > 5170 mg/kg
	Method: OECD Test Guideline 401
Acute inhalation toxicity	LC50 Rat: 22.2 mg/l / 4 h / dust/mist

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	Method:	OECD Test Guideline 403
Acute dermal toxicity		No data available
Skin irritation	Rabbit Skin irritation Method:	OECD Test Guideline 404
Eye irritation	Rabbit No eye irritation Method:	OECD Test Guideline 405
Sensitization	Buehler Test guinea pig: Does not cause skin sensitisation. Method:	OECD Test Guideline 406
Repeated dose toxicity	Oral Rat(male and female) Number of exposures: NOAEL: Method: Test substance: Molecular Weight corrected	7 days a week 60.5 mg/kg OECD TG 422 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 aspiration toxicity classification
Gentoxicity in vitro	Ames test Salmonella typhimurium negative Method: gene mutation Chinese hamster (CHO K1 -cells) negative Method: Test substance:	OECD TG 471 OECD TG 476 Structurally similar substance
	chromosomal aberration negative Method: Test substance:	OECD TG 473 Structurally similar substance
Gentoxicity in vivo	Micronucleus test Mouse Oral negative Method: Test substance:	OECD TG 474 Structurally similar substance
Carcinogenicity		No evidence that cancer may be caused.
Toxicity to reproduction	1 generation Oral Rat Number of exposures: NOAEL (No Observed Adverse Effect Level) of	daily 750 mg/kg

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parents:  
NOAEL F1: 750 mg/kg  
Method: OECD Test Guideline 415  
Test substance: Structurally similar substance  
Molecular Weight corrected

**Prenatal development toxicity study Oral Rat**

Number of exposures: daily  
NOAEL (No Observed Adverse Effect Level) of

750 mg/kg

parents:  
NOAEL F1: 750 mg/kg  
Method: OECD TG 414  
Test substance: Structurally similar substance  
Molecular Weight corrected

**Screening for reproductive/developmental toxicity Oral Rat**

Number of exposures: daily  
NOAEL (No Observed Adverse Effect Level) of

1210 mg/kg

parents:  
NOAEL F1: 1210 mg/kg  
Method: OECD TG 422  
Test substance: Structurally similar substance  
Molecular Weight corrected

**12. Ecological information****12.1. Toxicity**

Toxicity to fish no data available

**12.2. Persistence and degradability**

Biodegradability no data available

**12.3. Bioaccumulative potential**

Bioaccumulation no data available

**12.4. Mobility in soil**

Mobility No data available

**12.5. Other adverse effects**

Further Information No ecotoxicological studies are available.

**13. Disposal considerations****13.1. Waste treatment methods**



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**Product**

Waste must be disposed of in accordance with federal, provincial, state and local regulations. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH AN ELECTRIC OR GAS TORCH.

**Uncleaned packaging**

Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

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**14. Transport information****D.O.T. Road/Rail**

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S.(alkyl silane, contains methanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
14.5. Environmental hazards (Marine pollutant):	--
14.6. Special precautions for user:	No

**Air transport ICAO-TI/IATA-DGR**

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	Flammable liquid, n.o.s.(alkyl silane, contains methanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
14.5. Environmental hazards:	--
14.6. Special precautions for user:	Yes
IATA-C:	ERG-Code 3L Maximum Net Quantity per Package 220 L
IATA-P:	ERG-Code 3L Maximum Net Quantity per Package 60 L

**Sea transport IMDG-Code/GGVSee (Germany)**

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S.(alkyl silane, contains methanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
14.5. Environmental hazards (Marine pollutant):	--
14.6. Special precautions for user:	No
EmS:	F-E, S-E
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	for transport approval see regulatory information

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**15. Regulatory information****US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

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- None listed

**Clean Air Act Section (112)**

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- Methanol  
CAS-No. 67-56-1

**CERCLA Reportable Quantities**

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

**SARA Title III Section 311/312 Hazard Categories**

The product meets the criteria only for the listed hazard classes:

- Fire Hazard
- Acute Health Hazard

**SARA Title III Section 313 Reportable Substances**

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

**Toxic Substances Control Act (TSCA)**

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

**State Regulations**

The Listing requirements of the Right to Know (RTK) legislation varies by state. All information for NJ, PA, MA and other states can be derived from the listing of hazardous and non-hazardous components in section 2 and 15 of this MSDS.

**California Proposition 65**

A warning under the California Drinking Water Act is required only if listed below:

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

- Methanol  
CAS-No. 67-56-1

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

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**HMIS Ratings**

Health :	1
Flammability :	3
Physical Hazard :	1

**NFPA Ratings**

Health :	1
Flammability :	3
Reactivity :	1

**16. Other information****Further information**

Revision date 05/08/2015

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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**Legend**

<b>ACC</b>	American Chemistry Council
<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>ACS</b>	Advisory Committee on Sustainability
<b>ADI</b>	Acceptable Daily Intake
<b>ASTM</b>	American Society for Testing and Materials
<b>ATP</b>	Adaptation to Technical Progress
<b>BCF</b>	Bioconcentration factor
<b>BOD</b>	Biochemical oxygen demand
<b>c.c.</b>	closed cup
<b>CAO</b>	Cargo Aircraft Only
<b>Carc</b>	Carcinogen
<b>CAS</b>	Chemical Abstract Services
<b>CDN</b>	Canada
<b>CEPA</b>	Canadian Environmental Protection Act
<b>CERCLA</b>	Comprehensive Environmental Response – Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>CMR</b>	carcinogenic-mutagenic-toxic for reproduction
<b>COD</b>	Chemical oxygen demand
<b>DIN</b>	German Institute for Standardization
<b>DMEL</b>	Derived minimum effect level
<b>DNEL</b>	Derived no effect level
<b>DOT</b>	Department of Transportation
<b>EC50</b>	half maximal effective concentration
<b>EPA</b>	Environmental Protection Agency
<b>ErC50</b>	Reduction of Growth Rate
<b>ERG</b>	Emergency Response Guide Book
<b>FDA</b>	Food and Drug Administration
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
<b>GLP</b>	Good Laboratory Practice
<b>GMO</b>	Genetic Modified Organism
<b>HCS</b>	Hazard Communication Standard
<b>HMIS</b>	Hazardous Materials Identification System
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>IBC</b>	Intermediate Bulk Container
<b>ICAO-TI</b>	International Civil Aviation Organization- Technical Instructions
<b>ICCA</b>	International Council of Chemical Association
<b>ID</b>	Identification number
<b>IMDG</b>	International Maritime Dangerous Goods
<b>IUPAC</b>	International Union of Pure and Applied Chemistry
<b>ISO</b>	International Organization For Standardization
<b>LC50</b>	50 % Lethal Concentration
<b>LD50</b>	50 % Lethal Dose
<b>L(EC50)</b>	LC50 or EC50
<b>LOAEL</b>	Low est observed adverse effect level
<b>LOEL</b>	Low est observed effect level
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>NFPA</b>	National Fire Protection Association
<b>NOAEL</b>	No observed adverse effect level
<b>NOEC</b>	no observed effect concentration
<b>NOEL</b>	no observed effect level
<b>o. c.</b>	open cup
<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>OEL</b>	Occupational Exposure Limit
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PBT</b>	Persistent, bioaccumulative, toxic
<b>PEC</b>	Predicted effect concentration
<b>PNEC</b>	Predicted no effect concentration
<b>RQ</b>	Reportable Quantity
<b>SDS</b>	Safety Data Sheet
<b>STOT</b>	Specific Target Organ Toxicity
<b>UN</b>	United Nations
<b>vPvB</b>	very persistent, very bioaccumulative

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**voc** volatile organic compounds  
**WHMIS** Workplace Hazardous Materials Information System  
**WHO** World Health Organization