

SAFETY DATA SHEET**Protectosil® AQUA-TRETE 40**

Material no.		Version	4.0 / US
Specification	142397	Revision date	05/19/2015
Order number		Print date	09/16/2015
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Signal word	Warning
Hazard statement	H315 - Causes skin irritation.
Precautionary statement: Prevention	P264 - Wash skin thoroughly after handling. P280 - Wear protective gloves.
Precautionary statement: Reaction	P302 + P352 - IF ON SKIN: Wash with plenty of water/ soap. P332 + P313 - If skin irritation occurs: Get medical advice/ attention. P362 - Take off contaminated clothing and wash before reuse.

2.3. Other hazards

None known.

3. Composition/information on ingredients

• Triethoxyoctylsilane		20% - 60%
CAS-No.	2943-75-1	
Skin irritation		Category 2
• NJTSR No.56705700001-6834P		7% - 13%
Trade Secret		
Remarks	Not a hazardous substance or mixture.	

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

Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If symptoms develop or persist, obtain medical attention. Wash clothing before reuse.

Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

Ingestion

Aspiration of material into the lungs may cause chemical pneumonitis (damage to lungs) which may be fatal.

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

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

None known.

5. Fire-fighting measures

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5.1. Extinguishing media

Suitable extinguishing media: Use water spray or fog, foam, dry chemical or CO₂.

Unsuitable extinguishing media: High volume water jet.

5.2. Special hazards arising from the substance or mixture**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 positive-pressure breathing apparatus, (MSHA / NIOSH approved or equivalent) and full protective gear.

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

Wear personal protective equipment; see section 8.

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

Absorb spill with inert material, then place in a chemical waste container.

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

Use only in well-ventilated areas. Wear personal protective equipment; see section 8.

7.2. Conditions for safe storage, including any incompatibilities**Advice on protection against fire and explosion**

Normal measures for preventive fire protection.

Storage

Keep tightly closed in a dry and cool place.

8. Exposure controls / personal protection**8.1. Control parameters**

• Ethanol		
CAS-No.	64-17-5	
Control parameters	1000 ppm 1900 mg/m ³	Permissible exposure limit:(OSHA Z1)
Control parameters	1000 ppm 1900 mg/m ³	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)
Control parameters	1000 ppm	Short Term Exposure Limit (STEL):(ACGIH)
Control parameters	1000 ppm 1900 mg/m ³	Time Weighted Average (TWA):(TN OEL)

8.2. Exposure controls**Personal protective equipment**

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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
Color	white
Form	liquid
Odor	odorless
Odor Threshold	no data available
pH	7 (1 % solution)
Melting point/range	no data available
Melting point/range	not applicable
Boiling point/range	100 °C
Flash point	95 °C
Method:	Tagliabue Closed Cup
Evaporation rate	not determined
Flammability (solid, gas)	no data available
Lower explosion limit	not determined
Upper explosion limit	not determined
Vapor pressure	not determined
Vapor density	no data available
Relative vapor density	Heavier than air
Density	no data available
Water solubility	miscible with water

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Partition coefficient: n-octanol/water	not determined
Autoignition temperature	not determined
Thermal decomposition	no data available
Viscosity, dynamic	no data available

9.2. Other information

Explosiveness	no data available
% VOC (gm/l)	340

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

No specific hazards are known.

10.5. Incompatible materials

Alkaline, strong bases, strong oxidants, strong acids

10.6. Hazardous decomposition products

Ethanol in case of hydrolysis

This product is stable under normal storage conditions.

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

carcinogenicity assessment Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

Toxicological information on components**Triethoxyoctylsilane**

Acute oral toxicity LD50 Rat: > 5110 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity LC0 Rat: 22 ppm / 4 h / vapor
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
maximum concentration in the test: no animals died.

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Acute dermal toxicity	LD50 Rabbit: 6730 mg/kg Method: OECD Test Guideline 402
Skin irritation	Rabbit Skin irritation Method: OECD Test Guideline 404
Eye irritation	Rabbit No eye irritation Method: OECD Test Guideline 405
Sensitization	maximization test Guinea pig: Does not cause skin sensitization. Method: OECD Test Guideline 406 Test substance: Structurally similar substance
Repeated dose toxicity	Oral Rat / 28-day NOAEL: 300 mg/kg Method: OECD TG 422
Assessment of STOT single exposure	Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Assessment of STOT repeat exposure	Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Risk of aspiration toxicity	No evidence of aspiration toxicity
Gentoxicity in vitro	Ames test Salmonella typhimurium negative Method: OECD TG 471 chromosomal aberration Chinese hamster (CHO K1 -cells) negative Method: OECD TG 473 Genetic mutation in mammal cells TK +/- mouse lymphoma cell (L5178Y) negative Method: OECD TG 476
Carcinogenicity	No data available
Toxicity to reproduction	Screening for reproductive/developmental toxicity Oral Rat Number of exposures: daily NOAEL (No Observed Adverse Effect Level) of parents: 300 mg/kg Method: OECD TG 422 Screening for reproductive/developmental toxicity Oral Rat Number of exposures: daily NOAEL F1: 300 mg/kg Method: OECD TG 422

12. Ecological information

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12.1. Toxicity

No ecotoxicological studies are available on the mixture.

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.

An Expert Judgment stated that no classification is necessary based on present knowledge.

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

Waste must be disposed of in accordance with local, state, provincial and federal laws and regulations. Empty containers must be handled with care due to product residue.

Uncleaned packaging

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

14. Transport information

Not dangerous according to transport regulations.

- 14.1. UN number: --
 - 14.2. UN proper shipping name: --
 - 14.3. Transport hazard class(es): --
 - 14.4. Packing group: --
 - 14.5. Environmental hazards (Marine pollutant): --
 - 14.6. Special precautions for user: Yes
- Not dangerous according to transport regulations.

15. Regulatory information**US Federal Regulations**

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OSHA

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

- None listed

Clean Air Act Section (112)

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

- None listed

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:

- Acute Health Hazard

SARA Title III Section 313 Reportable Substance s

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:

- None listed

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

HMIS Ratings

Health : 2

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Flammability : 1
Physical Hazard : 0

NFPA Ratings

Health : 2
Flammability : 1
Reactivity : 0

16. Other information**Further information**

Revision date 05/19/2015

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

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Legend

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

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VOC Volatile organic compounds
WHMIS Workplace Hazardous Materials Information System
WHO World Health Organization