SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: Protectosil® CHEM-TRETE® 40 VOC
Chemical name:
CHEM-TRETE® BSM 40 VOC

Other means of identification
None.

Recommended restrictions

Recommended use: For industrial use
Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name	:	Evonik Corporation 2 Turner Place Piscataway, NJ 08854 USA
Telephone	:	+1 732 981 5000
E-mail	:	product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health Emergency	:	+1 800 424 9300 (CHEMTREC - US & CANADA) 800 681 9531 (CHEMTREC MEXICO) +1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 2

Health Hazards

Skin Corrosion/Irritation	Category 2

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:

Highly flammable liquid and vapor.
Causes skin irritation.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instructions on this label). In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Chemical name:
CHEM-TRETE® BSM 40 VOC

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Isobutyltriethoxysilane		17980-47-1	>=30 - <60%
Ethanol (Ethyl alcohol)		64-17-5	>=30 - <60%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

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:	Wash skin immediately with plenty of water for at least 15 minutes, while removing contaminated clothing and footwear. Seek medical assistance. Wash clothes before wearing them again. Destroy contaminated shoes or clean them thoroughly before wearing them again
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.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	None known.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	None known.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use water spray or fog, foam, dry chemical or CO2.
Unsuitable extinguishing media:	High volume water jet.
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.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.
Special protective equipment for fire-fighters:	No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Remove all sources of ignition. Ventilate the area. For personal protection see section 8.
Accidental release measures:	Remove sources of ignition and ventilate area. Run off may create fire or explosion hazard in sewer. Assure sufficient ventilation.

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

7. Handling and storage

Handling

Technical measures:	No data available.
Local/Total ventilation:	No data available.
Safe handling advice:	Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid breathing vapor or mist. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Follow all SDS/Label precautions even after the container is emptied because it may retain product residue. Vapors may spread long distances and travel to areas away from the work site before igniting or flashing back to the vapor source. For personal protection see section 8.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Keep tightly closed in a dry, cool and well-ventilated place. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.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 SDS/label precautions even after container is emptied because it may retain product residues.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Ethanol (Ethyl alcohol)	STEL	1,000 ppm		ACGIH (03 2016)
	REL	1,000 ppm	1,900 mg/m3	NIOSH (2010)
	PEL	1,000 ppm	1,900 mg/m3	OSHA Z1 (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values
No biological exposure limits noted for the ingredient(s).

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

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection: Use chemical splash goggles or face shield.

Skin Protection
Hand Protection: Additional Information: Use impermeable gloves.

Skin and Body Protection: Safety showers and eye showers should be easily accessible. In order to determine further specifications applicable to the personal protection equipment, a hazard assessment according to the OSHA standards (29 CFR 1910.132) for personal protection equipment (PPE) is recommended before the product is used.

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.

Hygiene measures: No data available.

9. Physical and chemical properties

Information on basic physical and chemical properties
Appearance
Physical state: liquid
Form: liquid
Color: Clear
Odor: Strong odor.
Odor Threshold: No data available.

Freezing point:	No data available.
Boiling Point:	172 °F/78 °C at 760 hPa
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	Not determined.
Explosive limit - lower:	Not determined.
Flash Point:	55.00 °F/12.78 °C Method: Pensky-Martens Closed Cup
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	Not determined.
Viscosity	
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	not miscible decomposition by hydrolysis
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	74 hPa at 72 °F/22 °C
Relative density:	0.8
Density:	No data available.
Bulk density:	No data available.
Relative vapor density:	Heavier than air
Other information	
Explosive properties:	Vapours may form explosive mixtures with air.
Evaporation Rate:	No data available.

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Avoid high temperatures and sources of ignition.
Incompatible Materials:	Water. acids Oxidizing substances
Hazardous Decomposition Products:	Silicone polymers.

11. Toxicological information

Information on likely routes of exposure

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Dermal

Product: Not classified for acute toxicity based on available data.

Inhalation

Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product:	No data available.
Components:	
Isobutyltriethoxysilane	NOAEL Rat, Female, Male, Oral, 28 d, > 1,000 mg/kg

Skin Corrosion/Irritation

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Irritating., OECD 404, Rabbit
Ethanol (Ethyl alcohol)	Not irritating, OECD 404, Rabbit

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Not irritating, OECD 405, Rabbit
Ethanol (Ethyl alcohol)	Irritating., OECD 405, Rabbit

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Maximization Test, OECD 406, Guinea Pig, Not a skin sensitizer.
Ethanol (Ethyl alcohol)	Maximization Test, OECD 406, Guinea pig, Not a skin sensitizer. Respiratory sensitizer, Rat, Not a respiratory sensitizer

Carcinogenicity

Product: Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity
In vitro

Product:	No data available.
Components:	
Isobutyltriethoxysilane	gene mutation test, OECD 471: , negative Chromosomal aberration, OECD 473: , negative gene mutation test, OECD 476: , negative
Ethanol (Ethyl alcohol)	Ames test, OECD 471: , negative, (analogy) gene mutation test, OECD 476: , negative, (analogy)

In vivo

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Chromosomal aberration, OECD 474, Oral, Mouse, Female, Male, negative
Ethanol (Ethyl alcohol)	Chromosomal aberration, OECD 478, Oral, Mouse, Male, negative

Reproductive toxicity

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Animal testing did not show any effects on fertility.
Ethanol (Ethyl alcohol)	Not classified

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Isobutyltriethoxysilane	Not classified
Ethanol (Ethyl alcohol)	Not classified

Information on health hazards

Other hazards
Product: No data available.

12. Ecological information

Ecotoxicity:
Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Isobutyltriethoxysilane	LC 50, Oncorhynchus mykiss, 96 h, 85 mg/lOECD 203
Ethanol (Ethyl alcohol)	LC 50, Pimephales promelas, 96 h, 11,200 mg/lUS-EPA-method

Aquatic Invertebrates

Product:	No data available.
Components:	
Isobutyltriethoxysilane	EC 50, Daphnia magna, 48 h, > 49.1 mg/lOECD 202
Ethanol (Ethyl alcohol)	LC 50, Ceriodaphnia dubia, 48 h, 5,012 mg/l

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Isobutyltriethoxysilane	EC 50, Desmodesmus subspicatus (green algae), 96 h, > 100 mg/l, OECD 201
Ethanol (Ethyl alcohol)	EC 50, Chlorella vulgaris (Fresh water algae), 72 h, 275 mg/l, OECD 201

Toxicity to microorganisms

Product:	No data available.
Components:	
Isobutyltriethoxysilane	NOEC, local activated sludge, 3 h, > 1,000 mg/l, OECD 209
Ethanol (Ethyl alcohol)	IC 50, activated sludge, 3 h, > 1,000 mg/l, OECD 209, (analogy)

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Ethanol (Ethyl alcohol)	NOEC, Danio rerio, 120 h, 1,000 mg/l, OECD 212

Aquatic Invertebrates

Product:	No data available.
Components:	
Ethanol (Ethyl alcohol)	LC 50, Ceriodaphnia dubia, 10 d, 1,806 mg/l NOEC, Ceriodaphnia dubia, 10 d, 9.6 mg/l LC 50, Daphnia magna, 2 d, 9,248 mg/l LC 50, Daphnia magna, 9 d, 454 mg/l NOEC, Daphnia magna, 9 d, 9.6 mg/l

Toxicity to microorganisms

Product:	No data available.
Components:	
Isobutyltriethoxysilane	NOEC, local activated sludge, 3 h, > 1,000 mg/l, OECD 209
Ethanol (Ethyl alcohol)	IC 50, activated sludge, 3 h, > 1,000 mg/l, OECD 209, (analogy)

Persistence and Degradability

Biodegradation

Product:	No data available.

BOD/COD Ratio

Product:	No data available.
Components:	
Ethanol (Ethyl alcohol)	58 %

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.

Partition Coefficient n-octanol / water (log Kow)

Product:	, No data available.

Mobility in soil:

Product: No data available.

Results of PBT and vPvB assessment:

Product: No data available.

Other adverse effects:

Other hazards
Product: No ecotoxicological studies are available.

Additional Information: No data available.

13. Disposal considerations

Disposal methods: 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.

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

14. Transport information

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1170
Proper shipping name	:	Ethanol
Class	:	3
Packing group	:	II
Labels	:	3
ERG Code	:	127
Marine pollutant	:	no

International Regulations

IATA-DGR

UN/ID No.	:	UN 1170
Proper shipping name	:	Ethanol
Class	:	3
Packing group	:	II
Labels	:	3
Packing instruction (cargo aircraft)	:	364
Packing instruction (passenger aircraft)	:	353
Remarks	:	ERG-Code 3L, Maximum Net Quantity per Package 60 L

IMDG-Code

UN number or ID number	:	UN 1170
Proper shipping name	:	ETHANOL
Class	:	3
Packing group	:	II

Labels	:	3
EmS Code	:	F-E, S-D
Marine pollutant	:	no

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

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information

US Federal Regulations

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

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Flammable (gases, aerosols, liquids, or solids), Skin Corrosion or Irritation

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

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

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities (on the basis of current knowledge of the product composition).

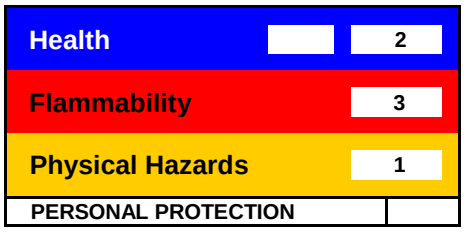
US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

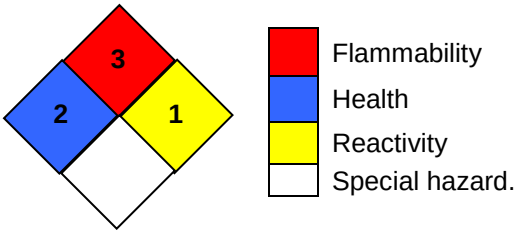
16.Other information, including date of preparation or last revision

HMIS Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Version #: 1.4

Generation date: 09/03/2024

Date of first report version: 12/27/2018

Abbreviations and acronyms:

ACGIH:	US. ACGIH Threshold Limit Values, as amended
NIOSH/GUIDE:	US. NIOSH: Pocket Guide to Chemical Hazards, as amended
OSHA_TRANS:	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
ACGIH / STEL:	Short Term Exposure Limit (STEL):
NIOSH/GUIDE / REL:	Recommended exposure limit (REL):
OSHA_TRANS / PEL:	Permissible exposure limit:

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO -

International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further Information: No data available.

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

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