1. **Identification**

1.1. **Product identifier**

    Trade name: Protectosil® CHEM-TRETE 40 VOC
    Chemical name: Protectosil® CHEM-TRETE BSM 40 VOC

1.2. **Recommended use of the chemical and restrictions on use**

    Relevant applications identified: For industrial use
    Function: Waterproofing agent

1.3. **Details of the supplier of the safety data sheet**

    Company: Evonik Corporation
    299 Jefferson Road
    Parsippany, NJ 07054-0677
    USA

    Telephone: 973-929-8000
    Telefax: 973-929-8040
    Email address: Product-Regulatory-Services@evonik.com

1.4. **24 HOUR EMERGENCY TELEPHONE NUMBERS:**

    CHEMTREC - US & CANADA: 800-424-9300
    CHEMTREC MEXICO: 01-800-681-9531
    CHEMTREC INTERNATIONAL: +1 703-527-3887 (collect calls accepted)
    Product Regulatory Services: 973-929-8060

2. **Hazards identification**

2.1. **Classification of the substance or mixture**

    Classification according to Regulation 29CFR 1910.1200
    Flammable liquids: Category 2 H225
    Skin irritation: Category 2 H315

2.2. **Label elements**

    Classification according to Regulation 29CFR 1910.1200
    Statutory basis symbol(s)
SAFETY DATA SHEET
Protectosil® CHEM-TRETE 40 VOC

Signal word
Danger

Hazard statement
H225 - Highly flammable liquid and vapor.
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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethoxyisobutylsilane</td>
<td>&gt;= 30% - &lt; 60%</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>17980-47-1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Category 4</td>
</tr>
<tr>
<td>Ethanol; ethyl alcohol</td>
<td>&gt;= 30% - &lt; 60%</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>64-17-5</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

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
Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes before reuse.

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

4.3. Indication of any immediate medical attention and special treatment needed
None known.

5. Fire-fighting measures

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
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
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.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Remove all sources of ignition. Ventilate the area. 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
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.

7. Handling and storage

7.1. Precautions for safe handling
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 MSDS/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. 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 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.

8. Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Ethanol; ethyl alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No. 64-17-5</td>
</tr>
<tr>
<td>Control parameters 1000 ppm 1900 mg/m3</td>
</tr>
<tr>
<td>Permissible exposure limit:(OSHA Z1)</td>
</tr>
<tr>
<td>Control parameters 1000 ppm 1900 mg/m3</td>
</tr>
<tr>
<td>Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)</td>
</tr>
<tr>
<td>Control parameters 1000 ppm</td>
</tr>
<tr>
<td>Short Term Exposure Limit (STEL):(ACGIH)</td>
</tr>
<tr>
<td>Control parameters 1000 ppm 1900 mg/m3</td>
</tr>
<tr>
<td>Time Weighted Average (TWA):(TN OEL)</td>
</tr>
</tbody>
</table>

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
Color: clear
Form: liquid
Odor: strong odor
Odor Threshold: no data available
pH: not determined
Melting point/range: no data available
Boiling point/range: 78 °C (760 hPa)
Flash point: 12.78 °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
Vapor pressure: 74 hPa (22 °C)
Relative density: 0.8
Density: no data available
Water solubility: not miscible
decomposition by hydrolysis
Partition coefficient: n-octanol/water: no data available
Autoignition temperature: 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): 600
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
Water, Acids, oxidizing substances

10.6. Hazardous decomposition products
Silicone polymers.
Stable under normal conditions.
Product will not undergo hazardous polymerization.

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 Isobutyltriethoxysilane

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50 Rat: &gt; 5000 mg/kg</td>
<td>OECD Test Guideline 401</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 Rat: 5.88 mg/l / 4 h / dust/mist</td>
<td>OECD Test Guideline 403</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment: The substance or mixture has no acute inhalation toxicity</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 Rat: &gt; 2000 mg/kg</td>
<td>OECD Test Guideline 402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assessment: The substance or mixture has no acute dermal toxicity</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Method: OECD Test Guideline 404</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rapid evaporation of the liquid may cause frostbite.</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Method: OECD Test Guideline 405</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
Protectosil® CHEM-TRETE 40 VOC

Material no. 141224
Specification
Order number

Version 4.0 / US
Revision date 04/21/2015
Print date 09/16/2015
Page 7 10 / 13

Sensitization
maximization test Guinea pig: Does not cause skin sensitization.
Method: OECD Test Guideline 406

Repeated dose toxicity
Oral Rat / 28-day
NOAEL: > 1000 mg/kg
Method: OECD Test Guideline 407

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: OECD TG 471
chromosomal aberration Chinese hamster (V 79 -cells) negative
Method: OECD TG 473
chromosomal aberration Chinese hamster (CHO K1 -cells) negative
Method: OECD TG 476

Gentoxicity in vivo
chromosomal aberration Mouse Oral negative
Method: OECD TG 474

Carcinogenicity
No evidence that cancer may be caused.

Toxicity to reproduction
Animal model trials have produced no evidence of fertility damage.

Ethanol; ethyl alcohol

Acute oral toxicity
LD50 Rat: 6200 mg/kg
Test substance: Ethanol (IUCLID)

Acute inhalation toxicity
LC50 Rat: 95.6 mg/l / 4 h
Test substance: Ethanol RTECS

Skin irritation
Rabbit
Not irritating.
Method: OECD Test Guideline 404
Test substance: Ethanol
The liquid removes oil from the skin. Repeated skin contact can cause dry and fragile skin.

Sensitization
Magnusson & Kligman: not sensitizing
Test substance: Ethanol
Mutagenicity assessment

This product may cause mutagenic effects.

12. Ecological information

12.1. Toxicity

*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

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.

14. Transport information

D.O.T. Road/Rail

14.1. UN number: UN 1170
14.2. UN proper shipping name: Ethanol solution
14.3. Transport hazard class(es): 3
14.4. Packing group: II
14.5. Environmental hazards (Marine pollutant): --
14.6. Special precautions for user: No
15. Regulatory information

US Federal Regulations

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
- Fire 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:

- 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
Flammability: 3
Physical Hazard: 1

NFPA Ratings

Health: 2
Flammability: 3
Reactivity: 1

16. Other information

Further information
Revision date 04/21/2015

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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VOC  Volatile organic compounds
WHMIS Workplace Hazardous Materials Information System
WHO  World Health Organization