1. Identification

1.1. Product identifier

<table>
<thead>
<tr>
<th>Trade name</th>
<th>Protectosil® CHEM-TRETE® BSM 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>Protectosil® CHEM-TRETE® BSM-400</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>17980-47-1</td>
</tr>
</tbody>
</table>

1.2. Recommended use of the chemical and restrictions on use

<table>
<thead>
<tr>
<th>Relevant applications identified</th>
<th>For industrial use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>Waterproofing sealer for concrete and masonry</td>
</tr>
<tr>
<td>Function</td>
<td>FOR PROFESSIONAL USE ONLY.</td>
</tr>
<tr>
<td>Function</td>
<td>Surface modifier</td>
</tr>
</tbody>
</table>

1.3. Details of the supplier of the safety data sheet

<table>
<thead>
<tr>
<th>Company</th>
<th>Evonik Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>299 Jefferson Road</td>
</tr>
<tr>
<td></td>
<td>Parsippany, NJ 07054-0677 USA</td>
</tr>
<tr>
<td>Telephone</td>
<td>973-929-8000</td>
</tr>
<tr>
<td>Telefax</td>
<td>973-929-8040</td>
</tr>
<tr>
<td>Email address</td>
<td><a href="mailto:Product-Regulatory-Services@evonik.com">Product-Regulatory-Services@evonik.com</a></td>
</tr>
</tbody>
</table>

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

<table>
<thead>
<tr>
<th>CHEMTREC - US &amp; CANADA:</th>
<th>800-424-9300</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMTREC MEXICO:</td>
<td>01-800-681-9531</td>
</tr>
<tr>
<td>CHEMTREC INTERNATIONAL:</td>
<td>+1 703-527-3887 (collect calls accepted)</td>
</tr>
<tr>
<td>Product Regulatory Services</td>
<td>973-929-8060</td>
</tr>
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</table>

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 29CFR 1910.1200

<table>
<thead>
<tr>
<th>Flammable liquids</th>
<th>Category 4</th>
<th>H227</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin irritation</td>
<td>Category 2</td>
<td>H315</td>
</tr>
</tbody>
</table>

2.2. Label elements

Classification according to Regulation 29CFR 1910.1200
Signal word: Warning

Hazard statement:
H227 - Combustible liquid.
H315 - Causes skin irritation.

Precautionary statement: Prevention
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves/ eye protection/ face protection.

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.
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>CAS-No.</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures

General advice
Remove contaminated or saturated clothing immediately and dispose of safely.

Inhalation
If aerosol or mists are inhaled, take affected persons out into the fresh air. Possible discomforts include severe irritation of mucus lining (nose, throat, eyes), cough, sneezing and flow of tears. In case of persistent discomfort, obtain medical attention immediately.

Skin contact
Immediately wash skin with soap and plenty of water. Remove contaminated clothing and continue rinsing with water for 15-20 minutes. Obtain medical attention immediately if symptoms occur. Wash clothing before reuse.

Eye contact
In case of contact, immediately flush eyes with plenty of water, or if necessary, with eye rinsing solution. In case of persistent discomfort, consult an ophthalmologist.

Ingestion
If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.

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
If required, therapy of irritative effect.
After absorbing large amounts of substance:
administration of activated charcoal.
Acceleration of gastrointestinal passage

5. Fire-fighting measures
5.1. Extinguishing media
Suitable extinguishing media: water spray, Alcohol-resistant foam, Carbon dioxide (CO₂), dry powder
Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture
Combustible liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.
Products that may be released in case of fire: carbon monoxide, carbon dioxide.

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
Ensure adequate ventilation. Use personal protective equipment.

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
Use in the open air or with adequate ventilation. Wear personal protective equipment; see section 8. Keep away from heat, sparks, flames and other sources of ignition. Keep container tightly closed. Use only with adequate ventilation.
Vapors may spread long distances and travel to areas away from the work site before igniting or flashing back to the vapor source.

7.2. Conditions for safe storage, including any incompatibilities
Advice on protection against fire and explosion
Take precautionary measures against static charges, keep away from sources of ignition.
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.

Storage
Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture.
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

Other information
Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Engineering measures
Provide adequate ventilation.

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
Glove material for example, Polychloroprene (PCP)
Material thickness 0.5 mm
Break through time >= 480 min
Glove material for example, Fluorinated rubber (FKM)
Material thickness 0.4 mm
Break through time >= 480 min
Method Source: GESTIS substance database (hazardous substance information system of commercial professional associations)
Use impermeable gloves.

The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use. Selection of protective gloves to meet the requirements of specific workplaces. Suitability for specific workplaces should be clarified with protective glove manufacturers.

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.

Hygiene measures
A void contact with skin, eyes and clothing. Do not inhale vapors or aerosols. Do not eat, drink, or smoke when using the product. Remove contaminated or saturated clothing.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid (20 °C) (1013 hPa)
Color: colorless
Form: liquid
Odor: Ester-like odor, fruity

Odor Threshold: not determined

pH: no data available

Melting point/range: < -72 °C (1013 hPa)
Method: OECD TG 102

Boiling point/range: ca. 186 °C (1013 hPa)
Method: DIN 51 751

Flash point: 63 °C
Method: DIN EN ISO 2719 (Pensky-Martens, Closed Cup)

Evaporation rate: not determined

Flammability (solid, gas): not flammable
Method: EEC method 92/69/EEC, A 12

Lower explosion limit: 0.39 % (V) (98 °C)
Method: DIN 51649

Upper explosion limit: 8.47 % (V) (150 °C)
Method: DIN 51649

Vapor pressure: 33 Pa (20 °C)
Method: OECD Test Guideline 104 dynamic method

49 Pa (25 °C)
Method: OECD Test Guideline 104 dynamic method

Vapor density: not determined

Relative density: 0.88 (20 °C)
Method: OECD Test Guideline 109
Density

ca. 0.88 g/cm³

(20 °C)

Method: DIN 51757

Water solubility

Not miscible.

Decomposition by hydrolysis.

Partition coefficient: n-octanol/water

log Pow: 2.033

(measured)

log Pow: > 2.03

literature

Autoignition temperature

240 °C (1013 hPa)

Method: DIN 51 794

Thermal decomposition

not determined

Viscosity, dynamic

not determined

Viscosity, kinematic

1.4 mm²/s

(20 °C)

Method: QSAR

9.2. Other information

Explosiveness

Vapors can form explosive mixtures with air.

% VOC (gm/l) 383

Metal corrosion

Not to be expected in view of the structure

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

Keep away from heat and sources of ignition.

In the presence of oxygen and heat, the ethanol forming during the reaction may produce acetaldehyde.

Material may form acetaldehyde when heated with inorganic pigments in the presence of air.

10.5. Incompatible materials

Water, oxidizing substances

10.6. Hazardous decomposition products

Ethanol in case of hydrolysis
11. Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity
LD50 Rat: > 5000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity
LC50 Rat: 5.88 mg/l / 4 h / dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity
LD50 Rat: > 2000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

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

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.

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

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

12. Ecological information

12.1. Toxicity

Toxicity to fish: LC50 Oncorhynchus mykiss: 85 mg/l / 96 h
Method: OECD 203
(literature value)

Toxicity in aquatic invertebrates: EC50 Daphnia magna: > 49.1 mg/l / 48 h
Method: OECD 202

Toxicity to algae: NOEC Desmodesmus subspicatus (green algae): >= 36 mg/l / 72 h
Method: OECD 201

Toxicity in terrestrial plants: EC50 Trifolium ornithopadioides: > 100 mg/kg / 17 d
Method: OECD 208

EC50 Lepidium sativum: > 100 mg/kg / 17 d
Method: OECD 208

EC50 Triticum aestivum: > 100 mg/kg / 17 d
Method: OECD 208

Toxicity in other terrestrial non-mammals: LC50 Eisenia foetida foetida: > 1000 mg/kg / 14 d
Method: OECD 207

12.2. Persistence and degradability

Biodegradability: Exposure time: 28 d
Result: 75 % Readily biodegradable.
Method: OECD 301 D

12.3. Bioaccumulative potential

Bioaccumulation: not bioaccumulative

12.4. Mobility in soil

Mobility: Adsorption on the floor: low.

12.5. Other adverse effects

Further Information: The data we have at our disposal do not necessitate identification concerning environmental hazard.
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

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

If there is product residue in the emptied container, follow directions for handling on the container’s label.

Incorrect disposal or reuse of this container is illegal and can be dangerous.

Other countries: observe the national regulations.

14. Transport information

D.O.T. Road/Rail

14.1. UN number: UN 1993
14.2. UN proper shipping name: Combustible liquid, n.o.s. (alkoxysilane)
14.3. Transport hazard class(es): C
14.4. Packing group: III
14.5. Environmental hazards (Marine pollutant): --
14.6. Special precautions for user:

ROAD: Not regulated in packages 450 liter or less.
(CFR)
RAIL: Not regulated in packages 450 liter or less.
(CFR)

Air transport ICAO-TI/IATA-DGR

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: --
14.6. Special precautions for user:

IATA-C: Not hazardous freight in air traffic (ICAO-TI / IATA-DGR).
IATA-P: Not hazardous freight in air traffic (ICAO-TI / IATA-DGR).

Sea transport IMDG-Code/GGVSee (Germany)

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 classified as hazardous sea cargo (IMDG code)
   FOR USA ONLY: In packagings exceeding 450 L, this product must be classified, placarded, marked and shipped as Combustible Liquid to the USA.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
   for transport approval see regulatory information

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazard</td>
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</table>

NFPA Ratings

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Health</td>
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<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity</td>
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</tr>
</tbody>
</table>

16. Other information

Further information

Revision date 07/23/2015

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

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Legend

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>ACC</td>
<td>American Chemistry Council</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>ACS</td>
<td>Advisory Committee on Sustainability</td>
</tr>
</tbody>
</table>