

SAFETY DATA SHEET**Protectosil® WB concentrate**

Material no.		Version	3.1 / US
Specification	181531	Revision date	06/04/2015
Order Number		Print Date	08/02/2016
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1. Identification**1.1. Product identifier**

Trade name Protectosil® WB concentrate

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified For industrial use
Function Surface modifier
 Raw material

1.3. Details of the supplier of the safety data sheet

Company Evonik Corporation USA
 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**

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Flammable liquids	Category 3	H226
Skin irritation	Category 2	H315

2.2. Label elements

Statutory basis Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Symbol(s)



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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 dry sand, dry chemical or alcohol-resistant foam 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

• Trimethoxypropylsilane		>= 60% - <= 100%
CAS-No.	1067-25-0	
Flammable liquids		Category 3
Skin irritation		Category 2
• Methanol		>= 0.1% - < 1%
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

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

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.

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.

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 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.

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 ³	Permissible exposure limit:(OSHA Z1)
Control parameters	200 ppm 260 mg/m ³	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 ³	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 ³	Time Weighted Average (TWA):(TN OEL)
Control parameters	250 ppm 325 mg/m ³	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	not determined
Odour Threshold	not determined
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	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Vapour pressure	not applicable
	not applicable

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Relative density	0.93
Water solubility	no data available
Partition coefficient: n-octanol/water	not determined
Autoignition temperature	not determined
Thermal decomposition	not determined
Viscosity, dynamic	not determined
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**

Acute oral toxicity	Acute toxicity estimate : > 5000 mg/kg Method: Calculation method
Acute inhalation toxicity	Acute toxicity estimate : > 40 mg/l / 4 h / vapour Method: Calculation method
Acute dermal toxicity	Acute toxicity estimate : > 5000 mg/kg Method: Calculation method

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

12. Ecological information**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 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 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 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

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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

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:

- 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
- Chronic Health Hazard

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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.

HMIS Ratings

Health :	2*
Flammability :	3
Physical Hazard :	1

NFPA Ratings

Health :	2
Flammability :	3
Reactivity :	1

16. Other information**Further information**

Revision date 06/04/2015

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
CEPA	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
DMEL	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)C50	LC50 or EC50
LOAEL	Low est observed adverse effect level
LOEL	Low est 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	Organisation 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