

SAFETY DATA SHEET

Classified in accordance 29 CFR 1910.1200

1. Identification

Product identifier: Protectosil® WS CIT 200

Other means of identification

None.

Recommended restrictions

Recommended use: For industrial use Corrosion inhibitor

Restrictions on use: Not determined.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation
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Piscataway, NJ 08854
USA

Telephone : +1 732 981 5000

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Label Elements

Hazard Symbol:



Signal Word: Warning

Hazard Statement:
Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements

Prevention: Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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

3. Composition/information on ingredients
Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Triethoxy(octyl)silane		2943-75-1	>=10 - <20%
Isotridecanol, ethoxylated		69011-36-5	>=1 - <5%
2-diethylaminoethanol		100-37-8	>=0.1 - <1%

^{*} 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 necessary first-aid measures

General information: Remove contaminated or soaked 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: 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: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not allow contaminated water to contact the unaffected eye or face during irrigation of an affected eye. Consult an eye doctor (ophthalmologist).

Ingestion: If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention. Never give by mouth to anyone, who faints quickly, becomes unconscious or has cramps.

Personal Protection for First-aid Responders: No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: After absorbing large amount of substance, apply therapy for irritative effects. If substance has been swallowed, early endoscopy is recommended in order to assess mucosa lesions in the esophagus and stomach which may appear. If necessary, suck away leftover substance. Allergic reactions cannot be excluded. Apply treatment of allergic reaction if necessary.

Hazards: None known.

Indication of immediate medical attention and special treatment needed

Treatment: If required, therapy of irritative effect. If substance has been swallowed: Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, aspirate leftover substance.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture: Standard procedure for chemical fires.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters: In case of fire: wear a self contained respiratory apparatus. As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.

Accidental release measures: No data available.

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:

Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems. 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 (e.g. Local and general ventilation):**

Provide adequate ventilation.

Safe handling advice:

Handle and open container with care. Handle in accordance with good industrial hygiene and safety practice. If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Do not breathe in vapours or aerosols. Avoid contact with skin and eyes.

Contact avoidance measures:

No data available.

Storage**Safe storage conditions:**

Normal measures for preventive fire protection. Keep tightly sealed in original packing. Protect from frost. Keep containers tightly closed in a cool, well-ventilated place. Protect from frost. Keep at temperature not exceeding 40°C. Do not store together with: strong acids, bases.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

None of the components have assigned exposure limits.

Biological Limit Values

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

Appropriate Engineering Controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment**Eye/face protection:**

Safety glasses

Skin Protection

Hand Protection:

Material: Butyl rubber.

Break-through time: > 480 min

Material: Fluorinated rubber (Viton)

Break-through time: >= 480 min

Additional Information: Selection of protective gloves to meet the requirements of specific workplaces., The suitability for a specific workplace should be discussed with the producers of the protective gloves., The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Additional Information: 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.

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:

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (filter type ABEK) or wear a self contained respiratory apparatus Use only respiratory protection equipment with CE-symbol including four digit test number. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Note time limit for wearing respiratory protective equipment. 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:

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Immediately remove contaminated clothing. Wash contaminated clothing before reuse.

9. Physical and chemical properties**Information on basic physical and chemical properties****Appearance**

Physical state:	liquid
Form:	liquid
Color:	Milky white
Odor:	almost odorless, slightly alcoholic
Odor Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flammability:	No data available.

Upper/lower limit on flammability or explosive limits

Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	> 203 °F/> 95 °C (DIN EN ISO 2719)
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	9 - 11.4 (DIN 38404-C5)

Viscosity

Dynamic viscosity:	20.4 mPa.s(DIN 53015)
Kinematic viscosity:	No data available.
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.
Density:	0.997 - 1.006 g/cm ³ (DIN 51757)
Bulk density:	No data available.
Relative vapor density:	No data available.

Other information

Explosive properties:	No data available.
Peroxides:	Not applicable
Miscible (water):	miscible

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 frost. Avoid temperatures above 40 °C

Incompatible Materials:	Strong acids. Strong bases.
Hazardous Decomposition Products:	Ethanol in case of hydrolysis. Alcohol formed by hydrolysis lowers the flash point of the product.

11. Toxicological information

Information on toxicological effects

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:

Triethoxy(octyl)silane NOAEL (Rat(Female, Male), Oral, 90 d, 7 days a week): 250 mg/kg

Skin Corrosion/Irritation

Product: Irritating.;

Serious Eye Damage/Eye Irritation

Product: Irritating.

Respiratory or Skin Sensitization

Product: No data available.

Components:

Triethoxy(octyl)silane Maximization Test, OECD 406 (Guinea Pig): Not a skin sensitizer. (analogy)

2-diethylaminoethanol Maximization Test, OECD 406 (Guinea Pig): Not a skin 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 1910.1001-1050), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity**In vitro****Product:** No data available.**Components:**

Triethoxy(octyl)silane	Ames test (OECD 471): negative Chromosomal aberration (OECD 473): negative gene mutation test (OECD 476): negative
2-diethylaminoethanol	gene mutation test (OECD 471): negative gene mutation test (OECD 476): negative

In vivo**Product:** No data available.**Components:**

2-diethylaminoethanol Micronucleus test (OECD 474) Oral (Mouse, Female, Male): negative

Reproductive toxicity**Product:** No data available.**Components:**

Triethoxy(octyl)silane	no evidence of reproductiontoxic properties
2-diethylaminoethanol	No negative effects.

Specific Target Organ Toxicity - Single Exposure**Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No evidence of aspiration toxicity**Information on health hazards****Other hazards****Product:** No toxicological tests are available on the product.;**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Components:**

Triethoxy(octyl)silane	In the range of water solubility not toxic under test conditions.
2-diethylaminoethanol	LC 50 (Leuciscus idus, 96 h): 147 mg/l

Aquatic Invertebrates**Product:** No data available.**Components:**

Triethoxy(octyl)silane	In the range of water solubility not toxic under test conditions.
2-diethylaminoethanol	EC 50 (Daphnia magna, 48 h): 165 mg/l

Toxicity to Aquatic Plants

Product name: Protectosil® WS CIT 200

Product: No data available.
Components:
2-diethylaminoethanol EC 50 (Desmodesmus subspicatus (Scenedesmus subspicatus), 72 h): 62.3 mg/l (DIN 38412, T.9) growth rate

Toxicity to microorganisms

Product: No data available.

Chronic hazards to the aquatic environment:**Fish**

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Components:

Triethoxy(octyl)silane In the range of water solubility not toxic under test conditions.

Toxicity to Aquatic Plants

Product: No data available.

Toxicity to microorganisms

Product: No data available.

Persistence and Degradability**Biodegradation**

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Components:

Triethoxy(octyl)silane Carp (Cyprinus carpio), Bioconcentration Factor (BCF): 1,890 (OECD 305) not bioaccumulative

2-diethylaminoethanol The product is not bioaccumulating.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Components:

Triethoxy(octyl)silane Log Kow: 6.41 (OECD 117)

2-diethylaminoethanol Log Kow: 0.46 calculated

Mobility in soil:

Product No data available.

Components:

Triethoxy(octyl)silane Adsorption on the floor: low.

2-diethylaminoethanol Not expected to adsorb on soil.

Results of PBT and vPvB assessment:

Product No data available.

Other adverse effects:

Other hazards**Product:** No data available.**Additional Information:** No ecotoxicological data is available for this product.**13. Disposal considerations****Disposal methods:** Waste must be disposed of in accordance with federal, state, provincial and local regulations. Since empty containers retain product residue, follow MSDS and label warnings even after container is emptied.**Contaminated Packaging:** 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****Domestic regulation****49 CFR**

Not regulated as a dangerous good

Remarks : Not dangerous according to transport regulations.

International Regulations**UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

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.

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.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Skin Corrosion or Irritation, Serious eye damage or eye 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.

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

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

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

None present or none present in regulated quantities.

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

Health	2
Flammability	1
Physical Hazards	0
PERSONAL PROTECTION	

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

Issue Date: 03/03/2020

Version #: 2.0

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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