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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Trade name/designation : TEROSTAT PC FRi 1C

1.2. Relevant identified uses of the substance or mixture and uses advised against

Specific use(s) : Silicone (Sealant, Coating)

1.3. Details of the supplier of the safety data sheet

Company : PCE-Pittsburgh Corning Europe
Albertkade 1
3980 - TESSENDERLO , BELGIUM
Telephone +32 (0)13 661 721
Telefax: +32 (0)13 667 854
E-mail: safetydepartment@pce.be
Website: www.foamglas.com

1.4. Emergency telephone number

Emergency telephone : +32 (0)13 661 721 (Only available during office hours.)

Country	Official advisory body	Address	Emergency number
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+35 318 37 99 64
UNITED KINGDOM	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0870 600 6266 (UK only)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****2.1.1. Classification according to Regulation (EU) 1272/2008**

CLP-Classification : This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/ECClassification : This mixture is classified as hazardous according to 1999/45/EC.
N; R51/53

Full text of R-phrases: see section 16

2.2. Label elements**2.2.1. Labelling according to Regulation (EU) 1272/2008**



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Hazard pictograms :



GHS09

Hazard statements :

: H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements :

: P273 - Avoid release to the environment.

P391 - Collect spillage.

P501 - Dispose of contents/ container to an approved waste disposal plant.

Extra phrases :

: EUH210 - Safety data sheet available on request.

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards :

: PBT/vPvB data :

This information is not available.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Zinc borate hydrate	(CAS No.) 138265-88-0 (EC No) 235-804-2 (REACH-no) 01-2119691658-19	2,5 - 10	N; R50/53
2-propanone, 2,2',2"-[O,O',O''-(ethylsilyldiylidene)trioxime]	(CAS No.) 58190-57-1 (EC No) 611-631-1 (REACH-no) 01-2119982962-22	1 - 10	Xn; R48/22
Hexamethyldisilazane	(CAS No.) 999-97-3 (EC No) 213-668-5	0,25 - 1	F; R11 T; R24 Xn; R20/22 C; R34 R52/53
Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Zinc borate hydrate	(CAS No.) 138265-88-0 (EC No) 235-804-2 (REACH-no) 01-2119691658-19	2,5 - 10	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-propanone, 2,2',2"-[O,O',O''-(ethylsilyldiylidene)trioxime]	(CAS No.) 58190-57-1 (EC No) 611-631-1 (REACH-no) 01-2119982962-22	1 - 10	STOT RE 2, H373
Hexamethyldisilazane	(CAS No.) 999-97-3 (EC No) 213-668-5	0,25 - 1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Aquatic Chronic 3, H412

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

Inhalation :

: Provide fresh air.
If symptoms persist, call a physician.

Skin contact :

: After contact with skin, wash immediately with plenty of water and soap.
Remove contaminated, saturated clothing immediately.
Get medical attention if irritation develops and persists.

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- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult an eye specialist .
- In case of ingestion : Rinse mouth.
Drink 1 or 2 glasses of water.
Do NOT induce vomiting.
Get medical advice/attention.
- Additional advice : First aider: Pay attention to self-protection!
See also section 8 .
Never give anything by mouth to an unconscious person or a person with cramps.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
When in doubt or if symptoms are observed, get medical advice.

4.2. Most important symptoms and effects, both acute and delayed

- Inhalation : Inhalation of vapours in high concentration may cause irritation of respiratory system.
- Skin contact : Repeated or prolonged exposure: May cause skin irritation.
- Eye contact : May cause slight irritation .
- Ingestion : Low order of acute toxicity. Large amounts: Liver and kidney injuries may occur.

4.3. Indication of any immediate medical attention and special treatment needed**SECTION 5: Firefighting measures****5.1. Extinguishing media**

- Suitable extinguishing media : Carbon dioxide, alcohol resistant foam, Extinguishing powder .
- Extinguishing media which must not be used for safety reasons : Strong water jet .

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non-flammable.
- Specific hazards : Hazardous decomposition products : COx, NOx. Do not allow run-off from fire-fighting to enter drains or water courses. Dispose according to legislation.

5.3. Advice for firefighters

- Advice for firefighters : Use personal protective equipment as required. In case of fire: Wear self-contained breathing apparatus. Keep containers and surroundings cool with water spray.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel : Provide adequate ventilation. Use personal protective equipment as required. Personal protection equipment: see section 8 . Stop leak if safe to do so. Avoid contact with skin, eyes and clothes. Do not breathe vapours/dust.
- For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Use personal protective equipment as required. Personal protection equipment: see section 8 .

**6.2. Environmental precautions**

Environmental precautions : Do not allow to enter into ground-water, surface water or drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically and collect in suitable container for disposal. Reference to other sections: 13 .

6.4. Reference to other sections

Disposal: see section 13 . Personal protection equipment: see section 8 .

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Handling : Provide adequate ventilation. Provide appropriate exhaust ventilation at machinery. Use personal protective equipment as required. Personal protection equipment: see section 8 . Avoid contact with skin and eyes. Do not breathe vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. After use replace the closing cap immediately. Do not allow to enter into surface water or drains.

Advices on general occupational hygiene : Keep good industrial hygiene. Wash hands and face before breaks and immediately after handling of the product. When using do not eat, drink or smoke. Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Observe technical data sheet / instructions for use. Keep container tightly closed in a cool, well-ventilated place. Keep away from heat.

7.3. Specific end use(s)

Silicone.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Exposure limit values :

Hexamethyldisilazane (999-97-3)		
Latvia	OEL TWA (mg/m ³)	2 mg/m ³
Lithuania	IPRV (mg/m ³)	2 mg/m ³

Recommended monitoring procedures : Concentration measurement in air
Personal air monitoring

Zinc borate hydrate (138265-88-0)	
DNEL/DMEL (workers)	
Long-term - systemic effects, dermal	250 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8,75 mg/m ³
DNEL/DMEL (general population)	
Long-term - systemic effects, oral	0,25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,19 mg/m ³
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day

2-propanone, 2,2',2''-[O,O',O''-(ethylsilyldiyl)trioxime] (58190-57-1)	
DNEL/DMEL (workers)	
Long-term - systemic effects, dermal	0,05935 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,41857 mg/m ³
DNEL/DMEL (general population)	
Long-term - systemic effects, oral	0,02968 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,10322 mg/m ³
Long-term - systemic effects, dermal	0,02968 mg/kg bodyweight/day
PNEC (water)	
PNEC aqua (freshwater)	0,23978 mg/l
PNEC aqua (marine water)	0,02398 mg/l
PNEC (sediment)	
PNEC sediment (freshwater)	2047,053 mg/kg dwt
PNEC sediment (marine water)	204,705 mg/kg dwt
PNEC (soil)	
PNEC soil	240,95 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	2,638 mg/kg
PNEC (STP)	
PNEC sewage treatment plant	2,638 mg/l

8.2. Exposure controls

Personal protection equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140) . Full face mask (EN 136) . Filter type: A (EN141).
Hand protection	: Wear chemically resistant gloves (tested to EN374) . NBR (Nitrile rubber) . Short-term exposure : >= 0,4 mm, > 30 min (index 2). Long-term exposure : >= 0,4 mm, > 480 min (index 6). The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Eye protection	: Safety glasses with side-shields / Goggles (EN 166)
Body protection	: Wear suitable protective clothing.
Thermal hazard protection	: Not required under normal use.
Engineering control measures	: Provide adequate ventilation. Provide appropriate exhaust ventilation at machinery. A washing facility/water for eye and skin cleaning purposes should be present. Organisational measures to prevent /limit releases, dispersion and exposure . See also section 7 .
Environmental exposure controls	: Do not allow to enter into surface water or drains. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	: liquid
Colour	: grey
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: > 100 °C
Evaporation rate	: No data available
Upper/lower flammability or explosive limits	: No data available
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: No data available
Water solubility	: No data available
Solubility in different media	: No data available
Partition coefficient n-octanol/water (log P O/W)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: Not applicable, The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

9.2. Other information

Surface tension	: No data available
Volatile organic compounds (VOC) content in percent by weight	: < 5 % (1999/13/EC)

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reactivity	: Reference to other sections: 10.5
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10.2. Chemical stability

Stability	: Stable under recommended storage conditions., Does not decompose when used for intended uses.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	: Polymerisation can occur. (+ Water) Safe handling: see section 7 .
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10.4. Conditions to avoid

Conditions to avoid : Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Safe handling: see section 7 .

10.5. Incompatible materials

Incompatible materials : None known.

10.6. Hazardous decomposition products

Hazardous decomposition products : Hazardous decomposition products formed under fire conditions. Carbon oxides . Nitrogen oxides (NOx) .

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

Hexamethyldisilazane (999-97-3)	
LD50/oral/rat	847 mg/kg
LD50/dermal/rabbit	540 mg/kg
LC50/inhalation/4h/rat	8700 mg/m ³ (Exposure time: 4 h)
ATE CLP (oral)	500 mg/kg bodyweight
ATE CLP (dermal)	300 mg/kg bodyweight
ATE CLP (gases)	4500,000 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1,5 mg/l/4h

Zinc borate hydrate (138265-88-0)	
LD50/oral/rat	> 10000 mg/kg
LD50/dermal/rabbit	> 10000 mg/kg

2-propanone, 2,2',2''-[O,O',O''-(ethylsilyldiylidene)trioxime] (58190-57-1)	
LD50/oral/rat	2500 mg/kg (OECD 423)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Serious eye damage/eye irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

2-propanone, 2,2',2''-[O,O',O''-(ethylsilyldiyl)trioxime] (58190-57-1)

NOAEL (oral, rat, 90 days) 11,87 mg/kg bodyweight/day

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

Other information

Symptoms related to the physical, chemical and toxicological characteristics, Reference to other sections: 4.2

SECTION 12: Ecological information**12.1. Toxicity**Toxicity : Toxic to aquatic life with long lasting effects.
Information given is based on data on the components and the ecotoxicology of similar products.

ingredient : **Hexamethyldisilazane (999-97-3)**
 LC50 fish 1 : 167 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
 EC50 Daphnia 1 : 186 mg/l (Exposure time: 48 h - Species: Daphnia magna)

ingredient : **Zinc borate hydrate (138265-88-0)**
 LC50 fish 1 : 2,4 mg/l (96h - Oncorhynchus mykiss - OECD 203)
 EC50 Daphnia 1 : 76 mg/l (48h - Daphnia magna - OECD 202)
 ErC50 (algae) : 0,47 mg/l (72h - Pseudokirchnerella subcapitata - OECD 201)

12.2. Persistence and degradability

Persistence and degradability : Not biodegradable

12.3. Bioaccumulative potentialBioaccumulation : No data available
 Partition coefficient n-octanol/water (log P OW) : No data available**12.4. Mobility in soil**Mobility : No data available
 Surface tension : No data available**12.5. Results of PBT and vPvB assessment**

PBT/vPvB data : This information is not available.

12.6. Other adverse effects

Other information : No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Product waste: : Handle with care. Safe handling: see section 7 . Refer to manufacturer/supplier for information on recovery/recycling . Collect and dispose of waste product at an authorised disposal facility. Dispose according to legislation. Do not allow to enter into surface water or drains.

Contaminated packaging : Delivery to an approved waste disposal company.

Further ecological information : Do not allow to enter into surface water or drains.

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List of proposed waste codes/waste designations in accordance with EWC

: Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1. UN number

UN number : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Zinc borate hydrate)

Proper shipping name IATA/IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Zinc borate hydrate)

14.3. Transport hazard class(es)

14.3.1. Overland transport

ADR/RID : Not classified for this transport way.
Class(es) : 9 - Miscellaneous dangerous substances and articles
Hazard identification number (Kemler No.) : 90
Classification code : M6
ADR/RID-Labels : 9 - Miscellaneous dangerous substances and articles



14.3.2. Inland waterway transport (ADN)

Class (UN) : 9

14.3.3. Transport by sea

IMDG : Not classified for this transport way.
Class or Division :

14.3.4. Air transport

Class or Division :

14.4. Packing group

Packing group : III

14.5. Environmental hazards

Environmental hazards : P



Other information : No supplementary information available.

14.6 Special precautions for user

No data available

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

No data available

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006 :

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 : TEROSTAT PC FRi 1C

3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 : 2-propanone, 2,2',2''-[O,O',O''-(ethylsilylidyne)trioxime]

3.c. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1 : TEROSTAT PC FRi 1C

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. : Hexamethyldisilazane

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC. : Not applicable

Authorisations : Not applicable

Volatile organic compounds (VOC) content in percent by weight : < 5 % (1999/13/EC)

15.1.2. National regulations

DE : WGK : 2
FR : Installations classées : 117x
NL : ABM : 6 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. (A)
NL : NeR (Nederlandse emissie Richtlijn) : Organic substances in vapour or gaseous form

15.2. Chemical safety assessment

Chemical Safety Assessment : For the following substances of this mixture a chemical safety assessment has been carried out
CAS 58190-57-1, CAS 138265-88-0

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Dermal)	: Acute toxicity (dermal), Category 3
Acute Tox. 4 (Inhalation)	: Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	: Acute toxicity Category 4
Aquatic Acute 1	: Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 1	: Hazardous to the aquatic environment - chronic hazard category 1
Aquatic Chronic 2	: Hazardous to the aquatic environment - chronic hazard category 2
Aquatic Chronic 3	: Hazardous to the aquatic environment - chronic hazard category 3
Flam. Liq. 2	: Flammable liquids, Category 2
Skin Corr. 1B	: Skin corrosion/irritation, Category 1B
STOT RE 2	: Specific target organ toxicity — Repeated exposure, Category 2
H225	: Highly flammable liquid and vapour.
H302	: Harmful if swallowed.
H311	: Toxic in contact with skin.
H314	: Causes severe skin burns and eye damage.
H332	: Harmful if inhaled.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
R11	: Highly flammable.
R20/22	: Harmful by inhalation and if swallowed.
R24	: Toxic in contact with skin.
R34	: Causes burns.
R48/22	: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
C	: Corrosive
F	: Highly flammable
N	: Dangerous for the environment
T	: Toxic
Xn	: Harmful
Key literature references and sources for data	: ECB. http://esis.jrc.eu.europa.eu . SDS supplier dd 31.03.2014 (475309 V001.2) (Hen-B-1080-Bru-20140331)
Other information	: Assessment/classification CLP, Article 9, Calculation method.
Abbreviations and acronyms	: ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosive Limit/Upper Explosion Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals EC50 = Median Effective Concentration LC50 = Median lethal concentration LD50 = Median lethal dose NA = Not applicable TLV = Threshold limits TWA = time weighted average STEL = Short term exposure limit



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persistent, bioaccumulating and toxic (PBT).

vPvB = very persistent and very bioaccumulating

WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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