SAFETY DATA SHEET

PRF BIOsol

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

PRF BIOsol

Product no.

PLBIOS05,PLBIOS10,PLBIOS25,PLBIOS200

Unique formula identifier (UFI)

577X-Q8DY-8007-4PM2

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

Relevant identified uses of the substance or mixture

Cleaning product

EuPCS

PC-CLN-2 / All-purpose (or multi-purpose) non-abrasive cleaners

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Taerosol Oy
Hampuntie 21
36220 Kangasala
Finland
+358 033565600
http://www.taerosol.com

E-mail

tilaukset@taerosol.com

Revision

04/06/2025

SDS Version

5.0

Date of previous version

22/07/2024 (4.0)

1.4. Emergency telephone number

HUS Poison Information Center, 24h 0800 147 111
Poison Information Center / HUS, Tukholmankatu 17, 00029 HUS (Helsinki)
See first aid measures section 4.

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. Classification of the substance or mixture

Eye Dam. 1; H318, Causes serious eye damage.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Causes serious eye damage. (H318)

Precautionary statement(s)

General

Keep out of reach of children. (P102)

Prevention

Wear eye protection/protective gloves. (P280)

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
Immediately call a POISON CENTER/doctor. (P310)

Storage

-

Disposal

-

Hazardous substances

Tetrasodium ethylene diamine tetraacetate
Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides

Additional labelling

UFI: 577X-Q8DY-8007-4PM2

▼Labelling of contents according to Detergents Regulation (EC) No 648/2004

< 5%
· Cationic surfactants
· EDTA and salts thereof
· Non-ionic surfactants
· Perfumes
Citral, Citrus Aurantium Peel Oil, Limonene, Pinene

2.3. Other hazards

▼Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
2-(2-butoxyethoxy)ethanol	CAS No.: 112-34-5 EC No.: 203-961-6 REACH: Index No.:	< 10%	Eye Irrit. 2, H319	[1], [3]
Tetrasodium ethylene diamine tetraacetate	CAS No.: 64-02-8 EC No.: 200-573-9 REACH: 01-2119486762-27- Index No.: 607-428-00-2	< 5%	Acute Tox. 4, H302 Eye Dam. 1, H318	
Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides	CAS No.: 1554325-20-0 EC No.: REACH: Index No.:	< 5%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	
Alcohols, C9-11, ethoxylated	CAS No.: 68439-46-3 EC No.: REACH: Index No.:	< 5%	Eye Irrit. 2, H319	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.
[3] According to REACH, Annex XVII, the substance is subject to restrictions.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Not applicable.

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

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:
Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Nitrogen oxides (NO_x)
Carbon oxides (CO / CO2)
Some metal oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Information Center on: 09-471977, in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous

earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage conditions

No specific requirements

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. ▼Control parameters

2-(2-butoxyethoxy)ethanol
Long term exposure limit (8 hours) (ppm): 10
Long term exposure limit (8 hours) (mg/m³): 68

Regulation of the Ministry of Social Affairs and Health on concentrations of chemical substances found to be harmful (55/2025).

DNEL

Tetrasodium ethylene diamine tetraacetate

Duration:	Route of exposure:	DNEL:
Short term – Local effects - General population	Inhalation	1,5 mg/m³
Short term – Local effects - Workers	Inhalation	3 mg/m³
Long term – Systemic effects - General population	Oral	25 mg/kg

PNEC

Tetrasodium ethylene diamine tetraacetate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		2,2 mg/L
Intermittent release		1,2 mg/L
Marine water		0,22 mg/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.
Ensure that eyewash stations and safety showers are located within easy reach.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards	
Respiratory protection is not needed in the event of adequate ventilation.				
A	Class 2 (medium capacity)	Brown	EN14387	

Skin protection

Recommended	Type/Category	Standards
No special when used as intended.	-	-

▼Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
If exposure is likely.				
Laminate	-	> 480	EN374-2, EN16523-1, EN388	

Eye protection

Type	Standards	
Safety glasses	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Pale yellow

Odour / Odour threshold

Lemon like

pH

11,2

Density (g/cm^3)

1.015

Relative density

No data available

Kinematic viscosity

No data available

Particle characteristics

Not applicable - product is a liquid

Phase changes

Melting point/Freezing point (°C)

No data available

Softening point/range (°C)

Does not apply to liquids.

Boiling point (°C)
> 100

Vapour pressure
No data available

Relative vapour density
No data available

Decomposition temperature (°C)
No data available

Data on fire and explosion hazards

Flash point (°C)
> 60

Flammability (°C)
No data available

Auto-ignition temperature (°C)
No data available

Lower and upper explosion limit (% v/v)
No data available

Solubility

Solubility in water
Completely soluble

n-octanol/water coefficient (LogKow)
No data available

Solubility in fat (g/L)
No data available

9.2. Other information

Other physical and chemical parameters
No data available.

▼Oxidizing properties
No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

▼Acute toxicity

Product/substance	2-(2-butoxyethoxy)ethanol
Route of exposure:	Oral
Test:	LD50
Result:	> 2000 mg/kg

Product/substance	2-(2-butoxyethoxy)ethanol
Route of exposure:	Dermal
Test:	LD50
Result:	> 2000 mg/kg

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Species:	Rat
Route of exposure:	Oral

Test:	LD50
Result:	> 300 - 2000 mg/kg

Product/substance	Alcohols, C9-11, ethoxylated
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	> 2000 mg/kg

Based on available data, the classification criteria are not met.

Skin corrosion/irritation
Based on available data, the classification criteria are not met.

Serious eye damage/irritation
Causes serious eye damage.

Respiratory sensitisation
Based on available data, the classification criteria are not met.

Skin sensitisation
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Reproductive toxicity
Based on available data, the classification criteria are not met.

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

Aspiration hazard
Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects
The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

▼Endocrine disrupting properties
This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information
None known.

SECTION 12: Ecological information

12.1. ▼Toxicity

Product/substance	Tetrasodium ethylene diamine tetraacetate
Species:	Fish, Lepomis macrochirus
Test:	LC50
Result:	41 - 2010 ml/L

Product/substance	Tetrasodium ethylene diamine tetraacetate
Species:	Daphnia, Daphnia magna
Test:	LC50
Result:	> 100 mg/L

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	> 10 - 100 mg/L

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Species:	Daphnia, Daphnia magna
Duration:	48 hours
Test:	EC50
Result:	> 1 - 10 mg/L

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	> 1 - 10 mg/L

Product/substance	Alcohols, C9-11, ethoxylated
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	1 - 10 mg/L

Product/substance	Alcohols, C9-11, ethoxylated
Species:	Crustacean
Duration:	48 hours
Test:	EC50
Result:	1 - 10 mg/L

Based on available data, the classification criteria are not met.

12.2. Persistence and degradability

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Conclusion:	Readily biodegradable
Test:	OECD 301 D

12.3. Bioaccumulative potential

Product/substance	Quaternary ammonium compounds, C12-14-alkyl(hydroxyethyl)dimethyl, ethoxylated, chlorides
Conclusion:	Bioaccumulation is not expected

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. ▼Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼Waste treatment methods

Product is not covered by regulations on dangerous waste.
Dispose of contents/container to an approved waste disposal plant.
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

No special.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

REACH, Annex XVII

2-(2-butoxyethoxy)ethanol is subject to REACH restrictions (entry 55).

▼Labelling of contents according to Detergents Regulation (EC) No 648/2004

< 5%
· Cationic surfactants
· EDTA and salts thereof
· Non-ionic surfactants
· Perfumes

Additional information

Not applicable.

Sources

25.4.2012 / 188 Ordinance of the Ministry of Social Affairs and Health on a list of examples of work that is dangerous for young workers.
Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.
H315, Causes skin irritation.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The safety data sheet is validated by

Taerosol Oy

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: FI-en