

Revision Date: 03.01.2023

Previous date: 04.01.2012

Print Date: 21.4.2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product information

Commercial Product Name: Petflox

1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture: Cleaning

1.3 Details of the supplier of the safety data sheet

Petflox BV Baak 1 8321DR Urk The Neterlands

Phone: +31 (0)6- 23 15 71 31 Web: <u>www.petflox.com</u> Email: <u>info@petflox.com</u>

1.4 Emergency telephone number

Petflox BV: +31 (0)6- 23 15 71 31 Carechem 24 International (Europe): +44 (0) 1235 239 670



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2. HAZARDS IDENTIFICATION

No significant risk's.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical nature : stabilized Food packaging certificate available from supplier.

<u>Component</u>	Concentration %	CAS nr	EC nr	EC annex nr	Symbols	R-Phrase(s)
Hydrogen Peroxide	4,9 %	7722-84-1	231-765-0	008-003-00-9	No significan	t risk's
		REACH registration number: 01-2119485845-22				

Stabilising gel for hydrogen peroxide – food safe – No significant risk's

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

Move to fresh air. Keep warm. Oxygen or artificial respiration if needed. Call a physician immediately.

Skin contact

Wash off immediately with plenty of water removing all contaminated clothes and shoes. Wash contaminated clothing with plenty of water to prevent a fire hazard. Keep warm. If skin irritation persists, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Ingestion

Rinse mouth. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Keep warm. Call a physician immediately.



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4.2 Most important symptoms and effects, both acute and delayed

Symptoms:Cough, Dizziness, Headache, Nausea, Shortness of breath,
Redness, Pain, Blurred vision, Burn, Abdominal pain,
Vomiting, Causes severe burns.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treatment : Symptomatic treatment.

:

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media

Water Water mist The product itself does not burn.

Unsuitable : extinguishing media Dry powder Carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

The product itself does not burn but it sustains the combustion of combustible material. Contact with combustible material may cause fire. Risk of explosion if mixed with combustible material. Pressure buildup in confined space (risk of decomposition).

5.3 Special protective actions for fire-fighters

Self-contained breathing apparatus (EN 133) Complete suit protecting against chemical

5.4 Specific methods

Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Never return spills in original containers for re-use. Ensure adequate ventilation. Wear personal protective equipment. Remove all sources of ignition. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent product from entering drains. Should not be released into the environment.



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6.3 Methods and materials for containment and cleaning up

Prevent from spreading. Dam up. Very dilute solution can be washed into drains with plenty of water. Contact the proper local authorities. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Never return unused material to storage receptacle. Open drum carefully as content may be under pressure. Avoid exposure. Ensure adequate ventilation, especially in confined areas. Wear suitable protective clothing. Keep away from sources of ignition - No smoking. Keep away from combustible material. Protect from contamination.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a cool, well-ventilated place. Keep away from heat and sources of ignition. Condition of containers should be checked regularly. Store in original container. Store in a receptacle equipped with a vent.

Materials to avoid: Combustible material, Reducing agents, Organic materials, Bases, metal oxides, metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn), metal salts, Rust, Dirt

7.3 Specific end uses

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limit Values

8.1.1 Limit values in other countries
Finland:
Hydrogen peroxide
HTP-arvot 8h = 1 ppm = 1,4 mg/m³
HTP-arvot 15 min = 3 ppm = 4,2 mg/m³

Sweden: Hydrogen peroxide NGV = 1 ppm = 1,4 mg/m³ TGV = 2 ppm = 3 mg/m³

Germany: Hydrogen peroxide MAK = 0,5 ppm = 0,71 mg/m³

Belgium:



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Hydrogen peroxide TGG 8 hr = 1 ppm = 1,4 mg/m³ Switzerland: Hydrogen peroxide TWA = 0,5 ppm = 0,71 mg/m³, : OSHA STEL = 0,5 ppm = 0,71 mg/m³, : OSHA

Estonia:

Hydrogen peroxide Piirnorm = 1 ppm = 1,4 mg/m³, *: Ceiling limit value - the maximum permitted sustained content of rapidly acting substances in the air over a 15 minute period; in the case of ammonia and isocyanide over a 5 minute period. Discorregiber = 2 mg/m³ *: Ceiling limit value - the maximum

Piirnormi lagi = 2 ppm = 3 mg/m³, *: Ceiling limit value - the maximum permitted sustained content of

rapidly acting substances in the air over a 15 minute period; in the case of ammonia and isocyanide over a 5 minute period.

Spain: Hydrogen peroxide VLA-ED = 1 ppm = 1,4 mg/m³

France: Hydrogen peroxide VME = 1 ppm = 1,5 mg/m³, : Indicative exposure limits

Ireland: Hydrogen peroxide OELV - 8 hrs (TWA) = 1 ppm = 1,5 mg/m³ OELV - 15 min (STEL) = 2 ppm = 3 mg/m³

Netherlands: Hydrogen peroxide TWA = 1 ppm = 1,4 mg/m³

Poland: Hydrogen peroxide NDS = 1,5 mg/m³ NDSch = 4 mg/m³

Portugal: Hydrogen peroxide VLE-MP = 1 ppm, A3: Substances of which the carcinogenic effect has been confirmed in laboratory tests on animals with confirmed relevance for humans



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Slovenia: Hydrogen peroxide MV = 1 ppm = 1,4 mg/m³

Slovakia: Hydrogen peroxide NPEL = 1 ppm = 1,4 mg/m³, Category 1: Local irritating factors or factors that cause sensibilisation of the airways.: Maximum duration of 15 minutes. Frequency per shift: 4. Minimum period between individual exposure peaks: 1 hour.

CEIL = 1,4 mg/m³, Category 1: Local irritating factors or factors that cause sensibilisation of the airways: Maximum duration of 15 minutes. Frequency per shift: 4. Minimum period between individual exposure peaks: 1 hour.

DNEL

Hydrogen peroxide	:	End Use: Workers Exposure routes: Inhalation Value: 3 mg/m ³ Acute, Local effects
		End Use: Workers Exposure routes: Inhalation Value: 1,4 mg/m ³ Long-term, Local effects
		End Use: General population Exposure routes: Inhalation Value: 1,93 mg/m ³ Acute, Local effects
		End Use: General population Exposure routes: Inhalation Value: 0,21 mg/m ³ Long-term, Local effects
PNEC		
Hydrogen peroxide	:	Fresh water Value: 0,0126 mg/l
		Fresh water sediment Value: 0,047 mg/kg
		Marine water Value: 0,0126 mg/l
		Marine sediment



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Value: 0,047 mg/kg STP Value: 4,66 mg/l

Soil

Value: 0,0023 mg/kg

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Avoid exposure. Wash hands before breaks and immediately after handling the product. Ensure adequate ventilation. Use personal protective equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2 Individual protection measures, such as personal protective equipment Hand protection

Glove material: Nitrile rubber, Break through time: 8 h Glove material: Natural Rubber, Break through time: 8 h Glove material: butyl-rubber, Break through time: 8 h Glove material: Polyethylene, Break through time: 8 h Glove material: PVC, Break through time: 4 h Glove material: Neoprene, Break through time: 1 - 4 h Do not wear leather gloves.Do not wear cotton gloves.(May cause fire.)

Eye protection Tightly fitting safety goggles and face-shield. Eye wash bottle with pure water

Skin and body protection Chemical resistant protective clothing. Do not wear leather shoes. Safety shower.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment. (filter ABEK-P3)

8.2.3 Environmental exposure controls Prevent product from entering the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information (app	earance, odo	our)
Physical state	:	liquid
Colour	:	colourless



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	Odour	:	odourless, slightly pungent
	Important health safety and e	nvironm	ental information
	pH	:	3.1 – 3.8
	Freezing point		± -4 °C
	Boiling point/boiling range		± 102 °C
	Flash point		not applicable
	Evaporation rate	:	>1
	Flammability (solid, gas)	:	not applicable
	Explosive properties	:	not applicable
	Lower explosion limit		not applicable
	Upper explosion limit		not applicable
	Vapour pressure	:	299 Pa (25 °C) 100 %
	Relative vapour density	:	no data available
	Density	:	1,05 g/cm ³
	Solubility(ies):		
	Water solubility	:	completely soluble
	Fat solubility	:	not applicable
	(solvent - oil to be		
	specified)		
	Partition coefficient:		
	n-octanol/water	:	log Pow: -1,57 (100 %)
	Thermal decomposition	:	> 102 °C Stabilized.
	Viscosity:		
	, Viscosity, dynamic	:	1,81 mPa.s (0 °C)
			± 1,02 mPa.s (20 °C)
	Oxidising	:	May intensify fire; oxidizer.
			(50 - 70 % H2O2)
			May cause fire or explosion; strong oxidizer.
			(>70 % H2O2)
9.2 Ot	her data		
	Surface tension	:	not determined

10. STABILITY AND REACTIVITY

10.1 Reactivity

Risk of decomposition in contact with incompatible products. Risk of explosion due to rapid pressure increase in closed containers. Decomposes to water and oxygen. Contact with combustible material may cause fire. Sustains the combustion of combustible material.



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Decomposes on heatir Stabilizing additive(s)	ng.	
10.3 Possibility of hazardous r	eactior	ıs
Hazardous reactions	:	See chapter 10.1. Risk of decomposition on heating. Risk of decomposition in contact with incompatible products.
10.4 Conditions to avoid		
Conditions to avoid	:	High temperatures. UV light. Keep away from heat and sources of ignition. Protect from contamination.
10.5 Incompatible materials		
Materials to avoid	:	Combustible material Reducing agents Organic materials Bases metal oxides metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn) metal salts Rust Dirt
10.6 Hazardous decompositio	n prodi	ucts
Hazardous decom- position products	:	Oxygen Water Steam
Thermal decom- position	:	>108 °C Note: Stabilized.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Harmful if swallowed.

> Hydrogen peroxide: LD50/Oral/rat: 1.193 - 1.270 mg/kg Remarks: (35 % solution)



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LD50/Inhalation/4 h/rat: > 0,17 mg/l Remarks: (50 % solution)

LD50/Dermal/rabbit: > 2.000 mg/kg Remarks: (35 % solution)

Irritation and corrosion Skin: Causes skin irritation.

> Eyes: Causes serious eye damage.

Hydrogen peroxide:

Skin: rabbit/4 h/Draize Test: irritating

Eyes: rabbit/Draize Test: Eye irritation Remarks: >=5% w/w to < 8% w/w

rabbit/Draize Test: Severe eye irritation Remarks: >= 8% w/w

Sensitization

Hydrogen peroxide: : Not sensitizing.

Long term toxicity Target organ May cause respiratory irritation.

Hydrogen peroxide:

Repeated dose toxicity: Oral/mouse/90 d/OECD Test Guideline 408: NOAEL: = 100 ppm LOAEL: = 300 ppm Remarks: In drinking water: (35 % solution)

Inhalation/rat/28 d/OECD Test Guideline 412: NOAEL: = 2,9 mg/m³ LOAEL: = 14,6 mg/m³

Carcinogenicity

No known carcinogenic effects.



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Mutagenicity

Result: Mutagenic, genotoxic Metabolic activation: Remarks: in vitro assay (various)

Result: not mutagenic Remarks: in vivo assay (various)

Target organ

Remarks: (≥35 % solution) STOT - single exposure May cause respiratory irritation.

Human experience

Inhalation:	Irritating to respiratory system.
Skin contact:	Contact with skin causes blanching and erythema.
Eye contact:	Liquid causes severe inflammation of conjunctiva and may
	cause severe damage of the cornea.
Ingestion:	Ingestion may cause gastrointestinal irritation, nausea,
	vomiting and diarrhea.

12. ECOLOGICAL INFORMATION

12.1 Eco toxicity effects

Aquatic toxicity Hydrogen peroxide: LC50/96 h/Pimephales promelas (fathead minnow)/semi-static test/US EPA TSCA Test Guidelines: 16,4 mg/l LC50/7 d/Oncorhynchus mykiss (rainbow trout): 38,5 mg/l EC50/48 h/Daphnia/semi-static test/US EPA TSCA Test Guidelines: 2,4 mg/l NOEC/72 h/Skeletonema costatum (diatom)/static test: 0,63 mg/l

Toxicity to other organisms

Hydrogen peroxide: EC50/30 min/activated sludge/Respiration inhibition of activated sludge/OECD Test Guideline 209: 466 mg/l EC50/3 h/activated sludge/Respiration inhibition of activated sludge/OECD Test Guideline 209: > 1.000 mg/l

12.2 Persistence and degradability

Biological degradability:

Hydrogen peroxide: Readily

Readily biodegradable

Chemical degradation: Hydrogen peroxide: Decomposes to water and oxygen



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12.3 Bio accumulative potential

Partition coefficient: n-octanol/water: log Pow: -1,57 Hydrogen peroxide: Bioaccumulation is unlikely. Partition coefficient: n-octanol/water: log Pow: -1,57

12.4. Mobility in soil

Mobility		
Vapour pressure	:	299 Pa (25 °C)
Water solubility	:	completely soluble
Henry's Constant	:	0,75 mPa*m ³ /mol (20 °C); Evaporation from water to air is very weak.
Surface tension	:	not determined
Hydrogen peroxide: Vapour pressure	:	299 Pa (25 °C)

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulation nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulation (vPvB).

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product In accordance with local and national regulations. See also: Accidental release measures. Wear personal protective equipment. The diluted aqueous solution can be released into drain if it is in accordance with local regulations. The undiluted waste must not be released into drain. Can be incinerated, when in compliance with local regulations. Rinse package before disposal. Empty containers that will be returned to the manufacturer must not be rinsed with water. Empty containers/packages must not be used for other purposes.

14. TRANSPORT INFORM	ATION	
Land transport	:	Product is not included in the list of dangerous products for Land transport.
Sea transport	:	Product is not included in the list of dangerous products for sea transport.



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Air transport : Product is not included in the list of dangerous products for air transport.

15. REGULATORY INFORMATION

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

Other regulations	:	Take note of Directive 96/82/EC on the control of major accident hazards involving dangerous substances. The product belongs to at least one of the categories 1 through 11 mentioned in Annex 1 of the Directive 1996/82/EC concerning the control of major accident hazards.
		control of major accident hazards.

Notification status

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

16. OTHER INFORMATION

Training advice

Read the safety data sheet before using the product.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Sources of key data used to compile the Safety Data Sheet Regulations, databases, literature, own tests.

Additions, Deletions, Revisions Relevant changes have been marked with vertical lines.