SAFETY DATA SHEET
OXYL-PRO® CLEAN

Revision date: 08/02/2018
Revision No: 6

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier:

Product Name: OXYL-PRO® CLEAN

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

Intended use: For industrial water treatment. Disinfection agent.

1.3. Details of the supplier of the safety data sheet

Company Name: Oxyl-Pro Limited
Unit 8 Birch Court
Grosvenor Grange
Warrington
WA1 4GD
Tel: 01606 851782
Email: enquiries@oxylpro.com

1.4. Emergency telephone number

Emergency No: 01606 851782 (0ffice hours only)
Carechem 24 International (Europe): +44 (0) 1235 239 670

SECTION 2: HAZARDS IDENTIFICATION

Labelling

Signal Word: Danger

2.2. Label Elements

Hazard Statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary Statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P284: In case of inadequate ventilation wear respiratory protection.
P303+P361+P353+p310: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing - Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
P305+P351+P338+P310: IF IN EYES: Rinse continuously with water for several minutes - Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor
P370+380+375: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed. Storage temperatures 5-30°C.

Hazardous components which must be listed on the label:
7722-84-1 Hydrogen peroxide

2.3. Other Hazards
Physical/Chemical Hazard: Risk of decomposition on heating. Risk of decomposition in contact with incompatible products. (metal oxides, metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn), metal salts, bases, reducing agents). Sustains the combustion of combustible material.
Remarks: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous ingredients:
HYDROGEN PEROXIDE <40%
CAS: 7722-84-1 **EC No**: 231-765-0 **EC annex No**: 008-003-00-9
REACH registration number: 01-2119485845-22

Composition comments:
Stabilised
Food packaging certificate available from supplier.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
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.

Inhalation:
Move to fresh air. Keep warm. Give oxygen or artificial respiration if needed. Call a physician immediately.

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 any immediate medical attention and special treatment needed
Treatment: Symptomatic treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media:	Water
	Water mist
	The product itself does not burn
Unsuitable Extinguishing media	Carbon dioxide (CO_2)
	Dry powder

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 build-up in confined space (risk of decomposition).

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus (EN 133)
Complete suit protecting against chemicals

5.4. Specific Methods

Cool containers / tanks with water spray.

SECTION 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

Environmental precautions:

Prevent product from entering drains. Do not release into the environment.

6.3. Methods and material for containment and cleaning up

Clean-up procedures:

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

SECTION 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. Never store in metal containers.

Shelf life: 2 years from date of manufacture when stored in accordance with recommendations. See best before date on label.

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 use(s)
Specific end use(s): No data available.

SECTION 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:
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.
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

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

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/m³
Acute, Local effects

End Use: Workers
Exposure routes: Inhalation
Value: 1,4 mg/m³
Long-term, Local effects

End Use: General population
Exposure routes: Inhalation
Value: 1,93 mg/m³
Acute, Local effects

End Use: General population
Exposure routes: Inhalation
Value: 0,21 mg/m³
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
Value: 0,047 mg/kg
STP
Value: 4,66 mg/l
Soil
Value: 0,0023 mg/kg

8.2. Exposure controls
Engineering measures
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.
Respiratory equipment
In case of insufficient ventilation wear suitable respiratory equipment. (filter ABEK-P3)
Hand protection
Use suitable protective gloves if risk of skin contact.
Glove material: butyl-rubber, Break through time: 8 h
Glove material: Natural Rubber, Break through time: 8 h
Glove material: Nitrile 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

8.2.3 Environmental exposure controls
Prevent product from entering the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

State:	Liquid
Colour:	Colourless
Odour:	Odourless - Slightly pungent
pH Value:	1.4 – 1.6
Density:	1.16
Solubility in water:	Complete
Flash point [°C]:	Not applicable
Freeze point:	-33°C
Boiling point:	108 °C
Vapour pressure:	299 Pa (25 °C) 100 %

Partition coefficient:	
n-octanol/water	log Pow: -1,57 (100 %)
Thermal decomposition	> 108 °C Stabilized
Viscosity:	
Viscosity, dynamic	1,81 mPa.s (0 °C) 1,10 mPa.s (20 °C)

SECTION 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.

10.2. Chemical stability

Decomposes on heating
Stabilising additive(s)

10.3. Possibility of hazardous reactions

Hazardous reactions:	See chapter 10.1. Risk of decomposition on heating Risk of decomposition in contact with incompatible products

10.4. Conditions to avoid

High temperatures
UV Light
Protect from contamination
Keep away from heat and sources of ignition.

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 decomposition products

Hazardous decomposition products	Oxygen Water Steam
Thermal decomposition	>108 °C Note: Stabilised.

SECTION 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)
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

Sensitisation
Hydrogen peroxide: not sensitising.

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.

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 diarrhoea

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
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
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 biodegradable

Chemical degradation:
Hydrogen peroxide:
Decomposes to water and oxygen.

12.3. Bioaccumulative potential
Partition coefficient: n-octanol/water: log Pow: -1,57
Hydrogen peroxide –bioaccumulation is unlikely.

12.4. Mobility in soil
Mobility:
Vapour pressure: 299 Pa (25 °C)
Water solubility: completely soluble
Henry's Constant: 0,75 mPa*m³/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, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects
No data available

SECTION 13: DISPOSAL CONSIDERATIONS

General information
Contact a licensed waste disposal company. Dispose of in compliance with local and national regulations.

13.1. Waste treatment methods
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/packages must not be used for other purposes.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number
UN number: **2014**

14.2. UN proper shipping name
Shipping name: **HYDROGEN PEROXIDE, AQUEOUS SOLUTION**

14.3. Transport hazard class(es)
Transport class: **5.1**

14.4. Packing group
Packing group: **II**

Risk code **58**
ADR/RID-Labels: **5.1 & 8**

Sea transport IMDG:

14.2. UN proper shipping name
Shipping Name: **HYDROGEN PEROXIDE, AQUEOUS SOLUTION**

14.3. Class **5.1**

14.4 Packaging group: **II**
Risk code **58**
MDG-Labels: **5.1 & 8**
14.5 Environmentally Hazardous: Not a Marine Pollutant

Air transport **Not suitable for air transport.**

14.6. Special precautions for user – None known.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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.
15.2 Chemical Safety Assessment
A chemical safety assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

Training advice
Read the safety data sheet before using the product

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

NSF - Oxyl-Pro Clean
MUL 23mg/L
Bactericide -
Disinfection &
Oxidation

This product is Certified to NSF/ANSI 60 for Drinking Water.

OXYL-PRO® is a registered trade mark of Chemiteq Limited.

Revision 6: 08/02/2018

Annex 1 (EG)1907/2006
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Legal disclaimer: 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.