Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878

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

1.1. Product identifier

Product name	**Steelcoxide B**
Chemical name and synonym	**Hydrogen Peroxide Solution 47%**
INDEX number	**008-003-00-9**
EC number	**231-765-0**
CAS number	**7722-84-1**
Registration Number	**01-2119485845-22-xxxx**

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

Intended use: **Solution "B" of the tri-component system "SteelcoXide". Concentrated sterilizing solution to be used in combination with the activator "Solution A". PROFESSIONAL USE ONLY.**

1.3. Details of the supplier of the safety data sheet

Name: **STEELCO S.p.A.**
Full address: **Via Balegante, 27**
District and Country: **31039 Riese Pio X (TV) ITALY**

tel. +39 0423 7561

fax +39 0423 755528

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Location: Moldova
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e-mail address of the competent person responsible for the Safety Data Sheet: **info@steelcogroup.com**

Product distribution by: **STEELCO S.p.A.**

1.4. Emergency telephone number

For urgent inquiries refer to

Centros de Orientação de Doentes Urgentes (CODU): 800250250

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Oxidising solid, category 2	H272	May intensify fire; oxidiser.
Acute toxicity, category 4	H302	Harmful if swallowed.
Skin Irritation, category 2	H315	Causes skin irritation
Specific target organ toxicity – single exposure, category 3	H335	May cause respiratory irritation
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

Classification note/notes according to Annex VI to the CLP Regulation: B

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation
H318	Causes serious eye damage.
H335	May cause respiratory irritation
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves/eye protection/face protection.
P261	Avoid breathing vapours/spray.
P220	Keep away from clothing and other combustible materials.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P310	Immediately call a POISON CENTER.

Contains:	Hydrogen Peroxide Solution 47 %wt INDEX 008-003-00-9

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain endrocrine disrupting chemicals in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Contains:

Identification	Conc.	Classification 1272/2008 (CLP)
HYDROGEN PEROXIDE SOLUTION		
CAS 7722-84-1 CE 231-765-0 INDEX 008-003-00-9 Reg. REACH 01-2119485845-22-xxxx	47 %wt	Ox. Liq. 1 H271, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Corr. 1A H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412, Nota di classificazione secondo l'allegato VI del Regolamento CLP: B *Ox. Liq. 1 H271: ≥ 70%* *Ox. Liq. 2 H272: ≥ 50%* *Skin Corr. 1A H314: ≥ 70%* *Skin Corr. 1B H314: ≥ 50%* *Skin Irrit. 2 H315: ≥ 35%* *Eye Dam. 1 H318: ≥ 8%* *Eye Irrit. 2 H319: ≥ 5%* *STOT SE 3 H335: ≥ 35%* *LD50 Oral: 693,7 mg/kg* *STA Inalazione vapori: 11 mg/l*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.
PROTECTION MEASURES FOR FIRST AID: for the PPE necessary for first aid interventions refer to section 8.2 of this safety data sheet.

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

EYES: from painful irritation to severe chemical burns (conjunctival hyperemia, conjunctivitis, edema, blepharospasm, iritis, corneal turbidity, epithelial defects, permanent corneal damage).
SKIN: solutions starting from approx. 10%: temporary bleaching (oxygen emphysema in interstitial tissue, gas embolism in blood capillaries), erythema, pain; from a concentration of approx. 70%: chemical burns, comparable to third degree burns; contamination of large areas could lead to systemic oxygen embolism.
INHALATION: mucosal irritation, inflammatory tissue reactions, obstruction, glottic and pulmonary edema, dyspnoea up to respiratory failure; extreme cases could lead to systemic effects.
INGESTION: irritation up to corrosion of the mucous membranes in contact especially in the upper digestive tract, distension of the stomach, displacement of the upper respiratory tract due to foaming, gastritis, duodenitis, colitis, acute visceral congestion, formation of vacuoles in the submucosal gastrointestinal tract, in lymphatic channels, mesenteric lymph nodes or mucosal-associated lymphoid tissue, as well as vacuolation in other organs, systemic effects due to air embolism.

SYSTEMIC EFFECTS: shock, acute coronary insufficiency, status epilepticus, cerebrovascular collapse, respiratory failure.
The most frequent cause of death after ingestion of solutions W> 10% is the obstruction of the respiratory tract due to the formation of foam (-> mechanical asphyxia).

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

Treat symptomatically.
In the event of an accident or discomfort, consult a doctor immediately (if possible show the instructions for use or the safety data sheet).

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.
By decomposition it releases oxygen. The release of oxygen can promote combustion.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For those who do not intervene directly
Do not take any action involving any personal risk or without proper training. Evacuate the surrounding areas. Do not touch or walk on the spilled material.
Wear suitable protective equipment (including personal protective equipment referred to in section 8 of this Safety Data Sheet) to prevent contamination of skin, eyes and personal clothing. Wear appropriate respirator when ventilation is inadequate.
Do not inhale the mists / vapors / fumes. Avoid the dispersion of the product into the environment. Follow the appropriate internal procedures for personnel not authorized to intervene directly in the event of accidental release.

6.1.2 For those who intervene directly
Stop the leak if there is no danger.
Evacuate unauthorized personnel. Wear suitable protective equipment. (see section 8 of this Safety Data Sheet). Follow the appropriate internal procedures for authorized personnel. Isolate the danger area and deny entry. Ventilate enclosed spaces before entering.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

No use other than that indicated in section 1.2 of this safety data sheet

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2019
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2020

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	0,71	0,5	0,71	0,5	
VLA	ESP	1,4	1			
VLEP	FRA	1,5	1			
WEL	GBR	1,4	1	2,8	2	
TLV-ACGIH		1,4	1			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	12,6	µg/L
Normal value in marine water	12,6	µg/L

Normal value for fresh water sediment	47	µg/kg
Normal value for marine water sediment	47	µg/kg
Normal value for water, intermittent release	19,8	µg/L
Normal value of STP microorganisms	4,66	mg/l
Normal value for the terrestrial compartment	2,3	µg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral					VND	VND	VND	VND
Inhalation	1,93 mg/m3	VND	210 µg/m³	VND	3 mg/m3	VND	1,4 mg/m3	VND
Skin					VND	VND	VND	VND

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with

environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid	
Colour	incolor	
Odour	pungent	
Odour threshold	Not determined	
pH	< 2,5	
Melting point / freezing point	-52 °C	Concentration: 50%
Initial boiling point	114 °C	Concentration: 50%
Boiling range	Not determined	
Flash point	> 60 °C	
Evaporation rate	Not determined	
Vapour pressure	13,33 mmHg	Concentration: 50% Temperature: 20 °C
Vapour density	Not determined	
Relative density	1,1829 g/cm^3	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	-1,57 Log Pow	Concentration: 60% Temperature: 20 °C
Auto-ignition temperature	Not applicable	
Decomposition temperature	>60 °C	
Viscosity	1,17 cP	Concentration:50% Temperature: 20 °C
Explosive properties	Not explosive	

9.2. Other information

9.2.1. Information about physico-chemicals hazard

No information available

9.2.2. Other safety information

Oxidant property	Oxidant cat. 3	Certificate of Analysis R-SSC-210689 of 05.27.21

SECTION 10. Stability and reactivity

10.1. Reactivity

Decomposes if exposed to: light,heat.
Decomposes on contact with: alkaline metals.Possibility of explosion.
The product is a strong oxidizing and reactive agent.

10.2. Chemical stability

In contact with impurities, decomposition catalysts, incompatible substances, and combustible substances, the substance can give rise to a self-accelerated exothermic decomposition reaction with formation of oxygen.

10.3. Possibility of hazardous reactions

The product may react violently with water. Danger of decomposition if exposed to heat.
The product is a strong oxidizing and reactive agent.
Impurities, decomposition catalysts, incompatible substances, combustible substances, can cause self-accelerated, exothermic decomposition and oxygen formation.
Risk of overpressure and bursting due to decomposition in confined spaces and pipes.
The release of oxygen can promote combustion.

10.4. Conditions to avoid

Avoid overheating. Prevent moisture or water from penetrating inside the containers.
Avoid exposure to: light,heat. Avoid contact with: alkaline substances.

10.5. Incompatible materials

Incompatible with: flammable substances, acetone, ethanol, glycerol, organic sulphides, hydrated bases, oxidising substances, iron,copper,bronze, chromium, zinc,l ead, silver, manganese, acetic acid.

Impurities, decomposition catalysts, metal salts, alkalis, hydrochloric acid, reducing agents (Risk of decomposition.).
Flammable substances (Fire hazard).
Organic solvents (Explosion hazard)

10.6. Hazardous decomposition products

Oxygen.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

It is an endogenous product formed in the cells of the organism. It penetrates through the skin and mucous membranes and decomposes in the underlying tissues. This causes diffuse infiltration of the released oxygen and the formation of emboli.
In the mammalian organism, the enzymes that mostly work for the metabolism of the substance are glutathione peroxidase and catalase (INRS, 2007).

Information on likely routes of exposure

The primary route of exposure for hydrogen peroxide solution is through the respiratory tract and skin. (GESTIS Substance Database)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute Effects:
Depending on the concentration: irritating to corrosive effects on the skin and mucous membranes, especially those of the eyes;
Inflammatory changes of the respiratory tract, in extreme cases lung damage due to higher vapor / aerosol concentrations.

Chronic Effects:
Irritation of the mucous membranes (mainly of the eyes and throat) and gradual discoloration of the hair; possible skin changes. (GESTIS Substance Database)

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:> 20 mg/l
ATE (Oral) of the mixture: 1043,88 mg/kg
ATE (Dermal) of the mixture: Not classified (no significant component)

LD50 (Oral) 1193 mg/kg Rat at the concentration of 35%
LD50 (Dermal) 2000 mg/kg bw Rabbit
LC50 (Vapour) >20 mg\L\4h

Method: equivalent or similar to OECD 401
Reliability (Klimisch score): 1
Species: Rat (Male / Female)
Routes of exposure: oral
Results: LD50 = 1026 mg / kg bw
Details of the tested material: 70% Hydrogen Peroxide

Method: equivalent or similar to OECD 403
Reliability (Klimisch score): 1
Species: Rat (Sprague-Dawley; Male / Female)
Routes of exposure: inhalation (vapors)
Results: LD50 not determinable at concentrations of 170 mg / m3
Details of the tested material: 50% Hydrogen Peroxide

Method: equivalent or similar to OECD 402
Reliability (Klimisch score): 1
Species: Rabbit (New Zealand White, male / female)
Routes of exposure: cutaneous
Results: LC50 = not determinable at a concentration of 2000 mg / kg bw
Details of the tested material: Hydrogen Peroxide 35%

SKIN CORROSION / IRRITATION

Corrosive for the skin

Method: equivalent or similar to OECD 404
Reliability (Klimisch score): 1
Species: Rabbit (New Zealand White, male / female)
Routes of exposure: cutaneous
Results: Category 2 Irritant (EC1272 / 2008)
Details of the tested material: Hydrogen Peroxide 49.2%

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

Method: equivalent or similar to OECD 405
Reliability (Klimisch score): 1
Species: Rabbit (New Zealand White, male / female)
Routes of exposure: ocular

Results: Category 2 Irritant (GHS Criteria)
Details of the tested material: Hydrogen Peroxide 10%

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Method: equivalent or similar to OECD 474
Reliability (Klimisch score): 1
In vivo test
Species: Mouse (Swiss OF1 / ICO: OF1, male / female)
Routes of exposure: intraperitoneal
Results: negative with and without metabolic activation
Details of the tested material: Hydrogen Peroxide 35%

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Reference: publication (1996)
Species: hamster (Syrian; Male / Female)
Routes of exposure: oral mucosa
Results: negative. NOAEL (carcinogenicity): not detected
Details of the tested material: Hydrogen Peroxide 3%
Bibliographic reference: J Am Coll Toxicol 15 (1), 45-61

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Reference: publication (1958)
Species: Rat (Osborne-Mendel; Male / Female)
Routes of exposure: Oral
Results: no effect observed
Details of the tested material: 0.45% Hydrogen Peroxide
Bibliographic reference: Nature 181, 1453

Adverse effects on sexual function and fertility

Female rats that received 0.45% hydrogen peroxide with water to drink for 5 weeks gave birth to normal litters after mating with untreated males. The fertility of male mice was not changed 3 months after administering a 1% product to drinking water for 4 weeks (INRS, 2007).

Adverse effects on development of the offspring

Reference: publication (1958)
Species: Rat (Wistar)
Routes of exposure: Oral
Results: no effect observed
Details of the tested material: Hydrogen Peroxide 10%
Bibliographic reference: Acta Obst Gynaec Japan 34, 2149-2154

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Based on available data, the substance has no specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

Target organ

Respiratory trait.

Route of exposure

Inalation (vapour).

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Method: OECD 40
Reliability (Klimisch score): 1
Species: Mouse (C57BL / 6NCrlBR; males / females)
Routes of exposure: oral
Results: negative. NOAEL = 100 ppm

Method: OECD 412
Reliability (Klimisch score): 1
Species: Rat (Alpk: ApfSD; males / females)
Routes of exposure: inhalation (aerosol)
Results: negative. NOAEL = 2.9 mg / m^3 air

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

No data are available on the hazard in case of aspiration.

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with effects on human health under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Activated sludge:

EC50 (30 min) = 466 mg/l (OECD 209)
EC50 (3 h) >1000 mg/l (OECD 209)

HYDROGEN PEROXIDE SOLUTION

LC50 - for Fish	16,4 mg/l/96h Pimephales promelas (USEPA Toxic Substances Control Act Test Guideline)
EC50 - for Crustacea	2,4 mg/l/48h Daphnia pulex (USEPA Toxic Substances Control Act Test Guidelines)

EC50 - for Algae / Aquatic Plants	1,38 mg/l/72h Skeletonema costatum, soluzione al 35%
Chronic NOEC for Fish	5 mg/L/96 h Pimephales promelas (USEPA Toxic Substances Control Act Test Guideline)
Chronic NOEC for Crustacea	1 mg/l Daphnia pulex (USEPA Toxic Substances Control Act Test Guidelines)
Chronic NOEC for Algae / Aquatic Plants	0,63 mg/l Skeletonema costatum, soluzione al 35%

12.2. Persistence and degradability

Quickly biodegradable, 99% in 30 min. (OECD 209)

Solubility in water	100000 mg/l

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water	-1,57

12.4. Mobility in soil

Soil / sediment: Log KOC = 0.2 evaporation and adsorption not significant.
Air, volatility, Henrym's constant = 0.75 kPa.m3 / mol. At 20 ° C

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

According to the available data, the product does not contain substances with endocrine-disrupting properties at a rate of 0.1% by weight or more.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse if possible. Product residues are to be considered special hazardous waste. The dangerousness of the waste that partially contains this product must be evaluated according to the laws in force. (Ref. Annex D - Part IV of Legislative Decree n. 152/2006 and subsequent amendments and adjustments).
Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local regulations.
The legal responsibility for disposal lies with the producer / holder of the waste.
Different CER (European Refusal Code) codes could be applied to this product according to the specific circumstances that generated the waste, any alterations and contaminations.
The product as it is, out of specification in the original packaging, or poured into a suitable container for disposal as waste, or the product in specification but no longer usable (for example following an accidental spill), it is to be classified with a CER code compatible with the description of use indicated in section 1.2.
The suitable final destination of the waste will be evaluated by the manufacturer according to the chemical-physical characteristics of the waste itself, compatible with the plant authorized to which it will be conferred for recovery, treatment or final disposal according to the procedures provided for by the regulations in force.
Disposal via the wastewater drain is not permitted.

CONTAMINATED PACKAGING
Contaminated packaging must be sent, properly labeled, for recovery or disposal in compliance with national regulations on the management of waste and is to be classified with the following CER code:
15 01 10 *: packaging containing residues of dangerous substances or contaminated by these substances.

SECTION 14. Transport information

14.1. UN number

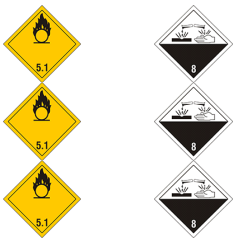
ADR / RID, IMDG, IATA: 2014

14.2. UN proper shipping name

ADR / RID:	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
IMDG:	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
IATA:	HYDROGEN PEROXIDE, AQUEOUS SOLUTION

14.3. Transport hazard class(es)

ADR / RID:	Class: 5.1	Label: 5.1 (8)
IMDG:	Class: 5.1	Label: 5.1 (8)
IATA:	Class: 5.1	Label: 5.1 (8)



14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 58	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special provision: -		
IMDG:	EMS: F-H, S-Q	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 5 L	Packaging instructions: 554
	Pass.:	Maximum quantity: 1 L	Packaging instructions: 550
	Special provision:	-	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: P8

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3

Liquid substances or mixtures that correspond to the criteria relating to one of the following hazard classes or categories referred to Annex I of Regulation (EC) No. 1272/2008:
a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types from A to F;
b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or development, 3.8 effects other than narcotic effects, 3.9 and 3.10;
c) hazard class 4.1;
d) hazard class 5.1.

Contained substance

Point 75

HYDROGEN PEROXIDE SOLUTION
Reg. no.: 01-2119485845-22-xxxx

Substances included in one or more of the following:
a) substances classified in one of the following classes in Annex VI, part 3, of Regulation (EC) no. 1272/2008:
- category 1A, 1B or 2 carcinogenicity, category 1A, 1B or 2 germ cell mutagenicity, but excluding substances classified due to effects following exposure by inhalation only;
- Reproductive toxicity of category 1A, 1B or 2, but excluding substances classified due to effects following exposure by inhalation only;
- skin sensitization of category 1, 1A or 1B;
- skin corrosion of category 1, 1A, 1B or 1C or skin irritation of category 2;
- serious category 1 eye damage or category 2 eye irritation;
b) substances listed in Annex II of Regulation (EC) no. 1223/2009 of the European Parliament and of the Council (*);
c) substances listed in Annex IV of Regulation (EC) no. 1223/2009 for which a condition is indicated in at least one of the columns g, h or i of the table of that annex;
d) substances listed in Appendix 13 of this annex. The ancillary requirements referred to in points 7 and 8 of the column
2 of this item apply to all mixtures intended for tattooing practices, regardless of whether
contain one of the substances referred to in points a) to d) of this column and entry.

Regulation (EC) No. 2019/1148 - on the marketing and use of explosives precursors

HYDROGEN PEROXIDE (CAS 7722-84-1) - Restricted explosives precursor
The acquisition, introduction, possession or use of that restricted explosives precursor by members of the general public is subject to a restriction as set out in Article 5(1) and (3). Restricted explosives precursors shall not be made available to, or introduced, possessed or used by members of the general public.
The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.
All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

Italian Ministry of the Interior
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E-Mail: precursori@dcpc.interno.it

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Class IIb medical device according to the 93/42 regulation.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Sol. 2	Oxidising solid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 878/2020 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2020/878 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
16. Regulation (EU) 2019/521 (XII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Regulation (EU) 2020/217 (XIV Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) – Italy

TRAINING FOR WORKERS:
The training of workers must include contents, updates and duration according to the risk profiles assigned to the working sectors of membership, according to the procedures provided for by Legislative Decree 81/2008.

NOTE FOR THE RECIPIENT OF THE SAFETY DATA SHEET (SDS):

It is the recipient of this SDS who must ensure that the information contained is read and understood by all persons who manipulate, store, use, or in any case come into contact in any way with the substance or mixture to which this sheet refers. In particular the recipient must provide adequate training to personnel assigned to the use of hazardous substances or mixtures. The recipient must make sure of the suitability and completeness of the information in relation to the specific use of the substance or mixture.
However, the substance or mixture to which this SDS refers must not be used for uses other than those specified in section 1. Do not assume responsibility for improper use. Since the use of the product does not fall under the direct control of the Supplier nor the productor FIS&DM srl, it is the user's obligation observe, under their own responsibility, the laws and regulations in force regarding national and community hygiene and safety.
The information contained in this SDS is provided in good faith and is based on the current state of scientific and technical knowledge as of the date revision indicated, available from the Supplier indicated in section 1 of this sheet. The SDS should not be construed as a guarantee of any specific property of the substance or mixture. The information refers only to the substance or mixture specifically designated for section 1 and may not be valid for the substance or mixture used in combination with other materials or in other processes not specifically indicated in the text.
This version of the SDS supersedes all previous versions.

CALCULATION METHODS FOR CLASSIFICATION:

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Classification of the mixture according to Regulation (EC) n. 1272/2008 Classification procedure

May intensify fire; oxidiser.	H272	Based on experimental data
Harmful if swallowed.	H302	Based on literature data
Causes skin irritation	H315	Based on literature data
May cause respiratory irritation	H335	Based on literature data
Causes serious eye damage.	H318	Based on literature data
Harmful to aquatic life with long lasting effects.	H412	Based on literature data

Changes to previous review
The following sections were modified:
01/ 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.