HYDROGEN PEROXIDE 35%

Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

Issue date:24/02/2020 Revision date: 24/02/2025 : Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Trade name	:	HYDROGEN PEROXIDE 35%
EC-No.	:	231-765-0
EC Index-No.	:	008-003-00-9
CAS-No.	:	7722-84-1
UN-No. (ADR)	:	2014
Product code	:	108110xxx
Formula	:	H2O2

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

Recommended uses and restrictions : For laboratory use only

1.3. Supplier's details

Labchem (Pty)Ltd
6 Wakefield Road
Founders Hill
1609 Johannesburg - South Africa
T +27 11 452 1116 - F +27 86 588 0293
techlab@labchem.co.za - www.labchem.co.za

1.4. Emergency telephone number

Emergency number : +27 11 452 1116

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Oxidising Liquids, Category 1	H271
Acute toxicity (oral), Category 4	H302
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 1A	H314

Full text of H statements : see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS-ZA) :

GHS03 GHS05 GHS07

Signal word (GHS-ZA) : Danger

Hazard statements (GHS-ZA) : H271 - May cause fire or explosion; strong oxidiser.
H302+H332 - Harmful if swallowed or if inhaled
H314 - Causes severe skin burns and eye damage.

Precautionary statements (GHS-ZA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep away from clothing and other combustible materials.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P283 - Wear fire resistant or flame retardant clothing.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306+P360 - IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P310 - Immediately call a POISON CENTER or doctor.

P312 - Call a POISON CENTER or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P371+P380+P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P405 - Store locked up.
P420 - Store separately.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : May cause fire or explosion; strong oxidiser,Harmful if inhaled,Harmful if swallowed,Causes severe skin burns and eye damage.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance identification codes: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
hydrogen peroxide (Main constituent)	(CAS-No.) 7722-84-1	≥ 35	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1A, H314

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash immediately with lots of water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists. Rinse skin with water/shower. Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not give activated charcoal. Call Poison Information Centre (www.big.be/antigif.html). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Do not give chemical antidote. Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. ON CONTINUOUS EXPOSURE/CONTACT: Risk of lung oedema. Respiratory difficulties.

Symptoms/effects after skin contact : Tingling/irritation of the skin. Burns.

Symptoms/effects after eye contact : Corrosion of the eye tissue. Inflammation/damage of the eye tissue. Serious damage to eyes.

Symptoms/effects after ingestion : Gastrointestinal complaints. Burns.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry/sore throat. Irritation of the eye tissue.

Potential adverse human health effects and symptoms : Harmful if swallowed. Causes skin irritation. May cause respiratory irritation. Causes serious eye damage.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water. Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher. Quantities of water. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Foam. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard". May cause fire or explosion; strong oxidiser.

Explosion hazard : INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Cool from behind cover/unmanned monitors. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Face shield. Protective clothing.

Emergency procedures : Ventilate spillage area. Mark the danger area. No naked flames. Keep containers closed. Wash contaminated clothes. In case of reactivity hazard: consider evacuation. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill.

Methods for cleaning up : Take up liquid spill into absorbent material. Take up liquid spill into a non combustible material e.g.: sand. Scoop absorbed substance into closing containers. Spill must not return in its original container. Carefully collect the spill/leftovers. Spill must not return in its original container. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle and open the container with care. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Observe normal hygiene standards. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Storage area	:	Store in a cool area. Keep out of direct sunlight. Store in a dark area. Keep container in a well-ventilated place. Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Under a shelter/in the open. Keep only in the original container. Meet the legal requirements.
Incompatible materials	:	combustible materials.
Heat and ignition sources	:	KEEP SUBSTANCE AWAY FROM: heat sources.
Information on mixed storage	:	KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. reducing agents. (strong) acids. (strong) bases. oils-fats. highly flammable materials. metals. organic materials. alcohols.
Special rules on packaging	:	SPECIAL REQUIREMENTS: closing. nonhermetical. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	:	SUITABLE MATERIAL: stainless steel. aluminium. polyethylene. glass. stoneware/porcelain. MATERIAL TO AVOID: monel steel. iron. copper. zinc. lead. nickel. brass. bronze.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HYDROGEN PEROXIDE 35% (7722-84-1)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Hydrogen peroxide
OEL TWA (mg/m³)	2 mg/m³
OEL TWA (ppm)	1 ppm
OEL STEL (mg/m³)	3 mg/m³
OEL STEL (ppm)	2 ppm
Regulatory reference	Government Notice. R: 1179

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Ensure good ventilation of the work station.
Environmental exposure controls	:	Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Materials for protective clothing	:	GIVE GOOD RESISTANCE: natural rubber. nitrile rubber. butyl rubber. polyethylene. PVC. viton. polyethylene/ethylenevinylalcohol. GIVE LESS RESISTANCE: neoprene. GIVE POOR RESISTANCE: leather. PVA. natural fibres
Hand protection	:	Protective gloves against chemicals (EN 374)
Eye protection	:	Face shield
Skin and body protection	:	Protective clothing
Respiratory protection	:	Full face mask with filter type B at conc. in air > exposure limit

Personal protective equipment symbol(s):

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Molecular mass	:	34 g/mol
Colour	:	Colourless.
Odour	:	Almost odourless.
Odour threshold	:	No data available
pH	:	3.3 (30 %)
pH solution	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	-33 °C
Freezing point	:	No data available

Boiling point	:	108 °C
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	0.1 hPa (20 °C)
Vapour pressure at 50 °C	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	1.1
Relative density of saturated gas/air mixture	:	1
Density	:	No data available
Relative gas density	:	No data available
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in ether. Water: complete
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Partition coefficient n-octanol/water (Log Kow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available
Lower explosive limit (LEL)	:	No data available
Upper explosive limit (UEL)	:	No data available

9.2. Other information

Minimum ignition energy	:	Not applicable
VOC content	:	Not applicable (inorganic)
Other properties	:	Clear. Acid reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes slowly on exposure to light: oxidation resulting in increased fire or explosion risk with pressure rise and possible bursting of container. This reaction is accelerated on exposure to impurities and on exposure to temperature rise. Reacts violently with combustible materials: risk of spontaneous ignition. Violent to explosive reaction with many compounds e.g. (some) metals and their compounds, (some) acids/bases, organic material, oxygen compounds, (strong) reducers and (some) metal powders: (increased) risk of fire. Reacts violently with oils/fats. May cause fire or explosion; strong oxidiser.

10.2. Chemical stability

Unstable on exposure to heat. Unstable on exposure to light.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Combustible materials.

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 toxicological effects

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Harmful if inhaled.
Skin corrosion/irritation	:	Causes severe skin burns. pH: 3.3 (30 %)
Serious eye damage/irritation	:	Assumed to cause serious eye damage pH: 3.3 (30 %)
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified

Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	Not classified
Potential adverse human health effects and symptoms	:	Harmful if swallowed. Causes skin irritation. May cause respiratory irritation. Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. Before neutralisation, the product may represent a danger to aquatic organisms.
Ecology - air	:	None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	:	Toxic to crustacea. Harmful to fishes. Toxic to algae. pH shift.
Hazardous to the aquatic environment, short-term (acute)	:	Not classified
Hazardous to the aquatic environment, long-term (chronic)	:	Not classified

12.2. Persistence and degradability

HYDROGEN PEROXIDE 35% (7722-84-1)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

HYDROGEN PEROXIDE 35% (7722-84-1)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

HYDROGEN PEROXIDE 35% (7722-84-1)	
Mobility in soil	No additional information available
Ecology - soil	No (test)data on mobility of the components available.

12.5. Other adverse effects

Ozone	:	Not classified
Other adverse effects	:	No additional information available

SECTION 13: Disposal considerations

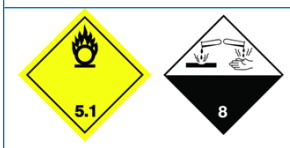
13.1. Disposal methods

Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.
Additional information	:	Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
2014	2014	2014
14.2. Proper Shipping Name		
HYDROGEN PEROXIDE, AQUEOUS SOLUTION	HYDROGEN PEROXIDE, AQUEOUS SOLUTION	Hydrogen peroxide, aqueous solution

SANS	IMDG	IATA
14.3. Transport hazard class(es)		
5.1 (8)	5.1 (8)	5.1 (8)
		 Not applicable
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No :	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

- SANS

Transport regulations (UN)	:	Subject to the provisions
Limited quantities (SANS)	:	1 L
Limited quantities (SANS)	:	1 L
Packagings, large packagings and IBCs Packing instructions (SANS)	:	P504, IBC02
Packagings, large packagings and IBCs Special packing instructions (SANS)	:	PP10, B5
Portable tank and bulk containers instructions (SANS)	:	T7
Portable tank and bulk container special provisions (SANS)	:	TP2, TP6, TP24

- IMDG

Transport regulations (IMDG)	:	Subject to the provisions
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P504
Special packing provisions (IMDG)	:	PP10
IBC packing instructions (IMDG)	:	IBC02
IBC special provisions (IMDG)	:	B5
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP2, TP6, TP24
EmS-No. (Fire)	:	F-H - FIRE SCHEDULE Hotel - OXIDIZING SUBSTANCES WITH EXPLOSIVE POTENTIAL
EmS-No. (Spillage)	:	S-Q - SPILLAGE SCHEDULE Quebec - OXIDIZING SUBSTANCES
Stowage category (IMDG)	:	D
Properties and observations (IMDG)	:	Colourless liquid.Slowly decomposes, evolving oxygen; the rate of decomposition increases in contact with metals, except aluminium. In contact with combustible material may cause fire or explosion. Causes burns to skin, eyes and mucous membranes. Even though stabilized, these solutions may evolve oxygen.

- IATA

Transport regulations (IATA)	:	Subject to the provisions
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y540
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	550
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	554
CAO max net quantity (IATA)	:	5L
ERG code (IATA)	:	5C

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

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

Regulatory reference : SANS 10234:2008; SANS 11014:2010; SANS 10228:2012;SANS 10229:2010; SANS 10232(1,2,4), SANS 10231:2018; Occupational Health and Safety Act 85 of 1993; National Road Traffic Act 93 of 1996.

SECTION 16: Other information

Issue date : 24/02/2020

Revision date : 24/02/2025

Full text of H-statements:

H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.

SDS South Africa

The data provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The data relates to the specific product as named and is ntended as a guide to the safe handling of the product in all its facets. The data may no longer be valid if the product is used in any process or in combination with other products.This SDS is not a quality specification nor any form of guarantee.