

SAFETY DATA SHEET

According to Regulation (EC) No 453/2010

SDS-H2O2(30)-0001

Version 1.2

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

1.1 Product identifier

Product name : **Hydrogen Peroxide 30% w/w**
 Included product code : H2O2(30)011-2.5P, H2O2(30)011-1.0P,
 H2O2(30)011-4.0P, H2O2(30)011-25P

1.2 Relevant identified uses of the substance or mixture

Identified uses : Laboratory chemicals, Manufacture of substances
 Uses advised against : Not applicable

1.3 Details of the supplier of the safety data sheet

Company : Elite Advanced Materials Sdn Bhd
 No 1, Jalan KPK 1/2, Kawasan Perindustrian
 Kundang, 48020 Rawang, Selangor, Malaysia

E-mail address : enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency phone : +60 3-6034 3766 (Local business hours only)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Skin Irritation	Category 2
Eye Damage	Category 1
Specific target organ toxicity – single exposure (Respiratory system)	Category 3

2.2 Label elements

Labeling in compliance to Regulation (EC) No. 1272/2008 [CLP/GHS]

Hazard pictograms



GHS05



GHS07

Signal word

Danger

Hazard statements

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

P264 Wash exposed skin thoroughly after handling
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves, eye protection
 P310 Immediately call a POISON CENTER or doctor/physician

Response

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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
 P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
 P332+P313 If skin irritation occurs: Get medical advice/attention

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Synonyms: Hydrogen Peroxide, 30% w/w

Formula: H_2O_2

Molecular Weight: 34.01 g/mol

Component	Identity	Classification Code	H-Code	Concentration (by wt)
Hydrogen Peroxide 30%	CAS-No.: 7722-84-1 EC-No.: 231-765-0 Index-No.: 008-003-00-9	Ox. Liq. 1 Acute Tox. 4 Skin Corr. 1A STOT SE 3 Aquatic Chronic 3	H271 H302 H332 H314 H335 H3412	<=30 %
Water	CAS No.: 7732-18-5	Not classified		>=70 %

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid measures

General information

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

If inhaled

Move person into fresh air and keep at rest in a position comfortable for breathing. Allow the victim to rest. Give artificial respiration if required.

In case of skin contact

Wash contaminated clothing before reuse. Wash off with soap and plenty of water for at least 15 minutes. Take victim to a doctor if irritation persists.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

If swallowed

Do NOT induce vomiting. Give nothing to drink. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and delayed symptoms and effects

Irritation, nausea, headache shortness of breath. Cause irritation in respiratory system and inflammation of organs.

4.3 Indication of any immediate medical attention and special treatment

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide (CO₂) to extinguish flames.

Unsuitable extinguishing media

Do not use a heavy water stream.

5.2 Special hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Containers may explode when heated. This material will accelerate burning when involved in a fire. In closed unventilated containers, risk of rupture due to the increase in pressure from decomposition.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protective equipment is required during handling. Ensure adequate ventilation. Evacuate personnel to safe areas. Minimize exposure. Avoid breathing vapours, mist or gas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not discharge into drains or waterways.

6.3 Methods and material for containment and cleaning up

Soak up spills with inert adsorbent material, such as clay or diatomaceous earth as soon as possible. Collect spillage in a container for disposal. Store away from other materials. Dilute with large quantities of water. If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labelled containers for recovery or disposal. If necessary, use trained response staff/contractor.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Personal protective equipment is required during handling to avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2 Conditions for safe storage, including any incompatibilities

Container must store in a cool dry, well-ventilated place and away from all incompatible materials, combustible materials. Keep container closed when not in use.

7.3 Specific end use

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen peroxide 35% Water	1.4 mg/m ³ Not classified	TWA: 1 ppm TWA: 1.4 mg/m ³	TWA: 1 ppm TWA: 1.4 mg/m ³

8.2 Exposure control

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protection measures, such as personal protective equipment

Do not eat, drink or smoke during chemical handling. Remove and wash contaminated clothing before re-using. Avoid all unnecessary exposure.

Eye/ face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact*

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact*

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 31 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

*Source – Sigma Aldrich, 2015

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges

as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Colourless
Ordor	:	Pungent
Ordor threshold	:	Not determined
pH - value	:	< 3.3
Melting point / Range	:	- 40°C
Boiling point / Range	:	126 °C at 1.013 hPa
Flash point	:	Not determined
Evaporation rate	:	Not determined
Flammability limit - LEL	:	Not determined
Flammability limit - UEL	:	Not determined
Vapour pressure	:	31.1 hPa at 30 °C
Vapor density (air = 1)	:	1.17
Density	:	1.13 g/m ³
Bulk density	:	Not determined
Solubility(ies)	:	Not determined
Water solubility	:	Completely miscible
Partition coefficient: n-octanol/water:	:	Not determined
Auto-ignition temperature	:	Not determined
Decomposition temperature	:	> 125 °C
Viscosity	:	Not determined
Explosive properties	:	Not determined
Oxidising properties	:	Not classified as oxidising agent
Surface Tension	:	Not determined

9.2 Other information

Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Reactive

10.2 Chemical stability

Unstable on exposure to light.

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Incompatible materials and combustibles. Direct sunlight. Extremely high or low temperatures. Excess shock and friction.

10.5 Incompatible materials

Strong reducing agents, Strong oxidizer, Strong bases, Alcohols, Ammonia, Lead oxides, Cyanides, Sulfides, Lead, Acetone, Iron salts. Metals, Brass, Copper, Copper alloys, Iron. Combustible materials.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Oxygen

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Nature of decomposition products not known.

In the event of fire: see section 5

SECTION 11: TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Causes skin irritation. Corrosive.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No toxicity to reproduction.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No aspiration toxicity classification

Signs and Symptoms of Exposure

For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

SECTION 12: ECOLOGY INFORMATION

12.1 Ecotoxicity

No data available

12.2 Environmental

Readily degradable

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

High mobility

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product/containers must not be disposed together with household garbage. Dispose in a safe manner in accordance with local/national regulations. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result. Cover with inert material and containerize for disposal.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 2014

IMDG: 2014

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: 5.1 (8)

IMDG: 5.1 (8)

IATA: 5.1 (8)

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA-DGR: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

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

No data available

14.7 Special precautions for user

No data available

SECTION 15: REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: OTHER INFORMATION

This information is based on present level of our knowledge, however, this shall not constitute a guarantee product features and shall not establish a legally valid contractual relationship.

H315 Causes skin irritation

H318 Causes serious eye damage

H335 May cause respiratory irritation

H412 Harmful to aquatic life with long lasting effects

Abbreviations:

ADR : European agreement concerning the international carriage of dangerous goods by road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association

ICAO : International Civil Aviation Organization

RID : Regulations concerning the International Carriage of Dangerous goods by rail.

Notice to reader

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the products and should not be construed as any guarantee of technical performance or suitability for particular application.

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