SAFETY DATA SHEET

According to Regulation (EC) No453/2010

SDS-HPD3.0-0001
Version 1.1
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Section 1: IDENTIFICATION OF SUBSTANCE/ MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product name	:	Alcogiene® HPD3.0 RTU
Product Description	:	Hydrogen Peroxide 3.0%, Blended with DI
Included product code	:	ACG113H2O2(3)DI-1.0TS

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 datasheet

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

Section 2: HAZARDS INDENTIFICATION

2.1 Classification of the substance or mixture

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

Serious Eye Damage/ Eye Irritation	Category 2

2.2 Label elements

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

Hazard pictograms

GHS07

Signal word

Warning

Hazard statement

H319	Causes serious eye irritation.

Precautionary statements

P264+P265	Wash hands and skin thoroughly after handling. Do not touch eyes.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P317	If eye irritation persists: Get medical help.

2.3 Other hazards

No data available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

3.2 Mixture

Hazardous components according to Regulation (EC) No 1272/2008

Component	Identity	Classification Code	H-Code	Concentration
Hydrogen Peroxide	CAS-No.: 7722-84-1	Ox. Liq. 1 Acute Tox. 4 (Oral) Acute Tox 4 (Inh.) Skin Corr. 1A (C ≥70)	H271 H302 H332 H314	1 – 10 %

Section 4: FIRST AID MEASURES

4.1 Description of First Aid measures

General information

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get immediate medical advice/attention.

In case of eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get immediate medical advice/ attention.

If swallowed

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2 Most important symptoms and delayed symptoms and effects

No data available.

4.3 Indication of any immediate medical attention and special treatment

No data available.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Flood with plenty of water.

Unsuitable extinguishing media

Organic compounds.

5.2 Special hazards arising from the substance or mixture

On decomposition releases oxygen which may intensify fire. Containers may swell and burst during a fire due to internal pressure caused by heat.

5.3 Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

No data available.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Avoid contact with skin, eyes and clothes.

Advice for emergency responders:
Protective equipment see section 8.

6.2 Environmental precautions

Do not allow product to enter sewers, surface of ground water.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

Section 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid impurities and heat effect. Avoid residues of the product on the containers. Wear personal protective equipment. Avoid contact with skin and eyes. Do not inhale vapour, aerosols, mist. Ensure there is good room ventilation. Immediately change

moistened and saturated work clothes. Provide for installation of emergency shower and eye bath. Set up safety and operation procedures.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place. Keep away from sunlight, heat, combustible and incompatible materials. Transport and store container in upright position only. Due to gaseous decomposition products, overpressure can occur in tightly sealed containers. Container should not be closed gas-tight.

7.3 Specific end use

No further relevant information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	ACGIH TLV	CAL/OSHA PEL	NIOSH REL
Hydrogen Peroxide	TWA: 1 ppm	TWA: 1 ppm	TWA: 1 ppm

(OSHA)

8.2 Exposure control

Personal protection measures, such as personal protective equipment

Never eat, drink or smoke during handling the chemical. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/ face protection

Face shield and safety glasses is required during handling. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand protection

Use appropriate protective gloves that are resistant to chemical agents in accordance with standard EN347.

Gloves must be selecting as indicated by the application and term of utilization at the workstation.

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

By short-term hand contact
Material: Nitrile rubber (NBR)
Material thickness: 0.12 mm
Break through time: 41 min

By long-term hand contact
Material: Nitrile rubber (NBR)
Material thickness: 0.38 mm
Break through time: > 480 min

(VWR, 2018; Ver 6.1)

Skin and Body protection

Wear suitable protective clothing.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (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
Colour	:	Colourless
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Lower Explosion Limit – LEL	:	No data available
Upper Explosion Limit – UEL	:	No data available
Vapor pressure	:	No data available
Density	:	No data available
Relative density	:	No data available
Water solubility	:	Soluble at 20 °C
Partition coefficient: n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

(Merck, 2023; Ver 6.6)

9.2 Other information

No applicable.

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with: The generally known reaction partners of water.

10.4 Conditions to avoid

Heat, flames, sources of ignition and sparks. Incompatible materials. Freezing or temperatures below 0 °C.

10.5 Incompatible materials

Strong acids and alkalis, strong oxidising agents, zinc, powdered metals, iron, copper, nickel, brass, iron and iron salts.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release irritant fumes and toxic gases.

Section 11: TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Hydrogen Peroxide

LD50 Oral	- 693.7 mg/kg	(Rat)
LD50 Dermal	- 2000 mg/kg	(Rabbit)
LC50 Inhalation	- 11.1 mg/l/4h	(Vapor)

(Merck, 2023; Ver 6.6)

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

Causes serious eye damage.

(VWR, 2018; Ver 6.1)

Respiratory or skin sensitisation

No sensitizing effects known.

(VWR, 2018; Ver 6.1)

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.

Aspiration hazard

No data available.

Additional Information

No data available.

Section 12: ECOLOGY INFORMATION

12.1 Ecotoxicity

Hydrogen Peroxide

Toxicity to fish	LC50 – Pimephales promelas (fathead minnow) – 16.4 mg/l – 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 – Daphnia pulex (Water flea) – 2.4 mg/l – 48 h
Toxicity to algae	ErC50 – Skeletonema costatum (marine diatom) – 1.38 mg/l – 72 h NOEC – Skeletonema costatum (marine diatom) – 0.63 mg/l – 72 h
Toxicity to bacteria	EC50 – Activated sludge – 466 mg/l – 30 min EC50 – Activated sludge - > 1000 mg/l – 3h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	NOEC – Daphnia magna (Water flea) – 0.63 mg/l – 21 d

(Merck, 2023; Ver 6.6)

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment.

No data available.

12.6 Other adverse effects

No data available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Waste material must be disposed according to national and local regulations. Keep the chemicals in its specific waste container according to the waste classification.

According to Quality Environment Regulation (Scheduled Waste) 2005, waste need to be sent to designated premise for recycle, treatment or disposal. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: -	IMDG: -	IATA-DGR: 3149

14.2 UN proper shipping name

ADR/RID:	NOT DANGEROUS GOODS
IMDG:	NOT DANGEROUS GOODS
IATA-DGR:	NOT DANGEROUS GOODS

14.3 Transport hazard class(es)

ADR/RID: -	IMDG: -	IATA-DGR: -

14.4 Packaging group

ADR/RID: -	IMDG: -	IATA-DGR: -

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. 453/2010.

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.

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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