HURST SCIENTIFIC

Safety Data Sheet
Hydrogen Peroxide

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Hydrogen Peroxide
Product number	AJA260-500M, AJA2.5LPL
Brand	Hurstchem
Substance name	Hydrogen peroxide
EC no.	231-765-0
CAS no.	7722-84-1
Index no.	008-003-00-9

1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place 6112 Forrestdale WA Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

1.5 Emergency phone number

Australian Poisons Information Centre 131 126
Australian Emergency Services 000

SECTION 2: Hazard identification

General hazard statement
Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as a Dangerousgoods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Skin corrosion/irritation, Cat. 1A
- Oxidizing liquids, Cat. 1
- Acute toxicity, oral, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Serious eye damage/eye irritation, Cat. 1

2.2 GHS label elements, including precautionary statements

Pictograms

1. Corrosion; 2. Flame over circle; 3. Exclamation mark

Signal word **Danger**

Hazard statement(s)

H271	May cause fire or explosion; strong oxidizer
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled

Precautionary statement(s)

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/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash … 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/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 [or 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/doctor/...
P312	Call a POISON CENTER/doctor/... if you feel unwell.
P321	Specific treatment (see … on this label).
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use … 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 …

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name: Hydrogen peroxide; CAS no.: 7722-84-1; Formula: H2O2; Molecular weight: 34.02

Other names / synonyms: Hydrogen peroxide (H2O2)

Hazardous components

Component	Concentration

Hydrogen peroxide (CAS no.: 7722-84-1)	**30 %**
Water (CAS no.: 7732-18-5)	**Remainder**

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give Oxygen. Immediately seek medical attention.
In case of skin contact	Wash affected area thoroughly with copious amounts of water. Remove contaminated clothing and wash before reuse. If irritation develops seek medical attention.
In case of eye contact	Flush eyes with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
If swallowed	DO NOT induce vomiting. Wash mouth out with copious amounts of water. Seek immediate medical attention.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

5.2 Specific hazards arising from the chemical
Toxic gases may evolve.

5.3 Special protective actions for fire-fighters
Wear SCBA (Self-Contained Breathing Apparatus) and full equipment for fire fighters protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use water spray to knock down vapours. Wear appropriate protective clothing. Ensure adequate ventilation. If possible, contain the spill and prevent exposure to heat. Evacuate all unnecessary personnel.

6.3 Methods and materials for containment and cleaning up
If you should spill this chemical, use absorbent paper to pick up all liquid spill material. Seal the absorbent paper, as well as any of your clothing which may be contaminated, in a vapor-tight plastic bag for eventual disposal. Wash any surfaces you may have contaminated with a strong soap and water solution. Dispose of waste according to local authority guidelines. Do not contaminate drains or waterways.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Use only in an adequately ventilated area. Avoid contact with eyes, skin or clothing. Wear appropriate protective clothing to avoid any exposure and practice good personal hygiene. Keep container tightly sealed when not in use.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well-ventilated area out of direct sunlight. Use light-resistant containers. Keep containers tightly closed when not in use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 7722-84-1
Hydrogen peroxide
AU/SWA (AU): 1 ppm; 1.4 mg/m3 TWA inhalation

8.2 Appropriate engineering controls

Ensure adequate ventilation to maintain airborne concentrations below national exposure standards.

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

Eye/face protection
Safety glasses or goggles,

Skin protection
Safety glasses or goggles, chemical-resistant gloves and laboratory coat.

Respiratory protection
Use a respirator if ventilation is inadequate.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear, colourless liquid
Color	No data available.
Odor	No data available.
Odor threshold	No data available.
Melting point/freezing point	-25
Boiling point or initial boiling point and boiling range	108
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Water soluble.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	1.110 @ (20/4 C)
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Non-reactive under recommended conditions for use and storage.

10.2 Chemical stability
Stable under recommended conditions for use and storage, however, is light sensitive.

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
Direct sunlight and heat, organic materials, reducing agents, strong oxidants and rust.

10.5 Incompatible materials
Zinc, Powdered metals, Iron, Copper, Nickel, Brass, Iron and iron salts.

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

Water: In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Ingestion
Harmful if swallowed. Causes irritation to the gastrointestinal tract, with sharp abdominal pains, nausea, vomiting, diarrhoea and can lead to perforation of the oesophagus and stomach. Ingestion is not a typical route of occupational exposure.

Skin corrosion/irritation
Corrosive to the skin and can cause burns. Can also cause redness, itching, irritation, severe pain and chemical burns. May bleach the skin.

Serious eye damage/irritation
Corrosive to eyes and contact can cause corneal burns. Can cause stinging, blurring of vision, lacrimation and severe pain.

Respiratory or skin sensitization
If heated or misted, inhalation of vapours is highly irritating to the upper respiratory tract and may burn the mucous membranes. Can result in pain, inflammation, lacrimation, coughing and headaches.

Germ cell mutagenicity
No classification available.

Carcinogenicity
Hydrogen Peroxide is classified as Group 3 in the IARC Monographs: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
No classification available.

Specific target organ toxicity (STOT) - single exposure
No classification available.

Specific target organ toxicity (STOT) - repeated exposure
No classification available.

Aspiration hazard
No classification available.

SECTION 12: Ecological information

Toxicity
Product is toxic for aquatic organisms.

Persistence and degradability
Readily biodegradable.

Bioaccumulative potential
Does not accumulate.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Dispose of in accordance with local authority guidelines.

Packaging disposal
Dispose of in accordance with local authority guidelines.

Waste treatment
Dispose of in accordance with local authority guidelines.

Sewage disposal
Dispose of in accordance with local authority guidelines.

SECTION 14: Transport information

DOT (US)
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code.

UN Number:	2014
UN Proper shipping name:	Hydrogen Peroxide (Aqueous solution)
Class and subsidiary risk:	5.1, Sub-Class 8
Packing group:	II
Special precautions	Class 5.1 Oxidising Agents are incompatible in a placard load with any of the following: - Class 1 Class 2.1 Class 2.3 Class 3 Class 4 Class 5.2 Class 7 Class 8 Fire risk substances and combustible liquids.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Australian Inventory of Industrial Chemicals
Chemical name: Hydrogen peroxide (h2o2)
CAS number: 7722-84-1, CR number: 11258

Australian Inventory of Industrial Chemicals
Chemical name: Water
CAS number: 7732-18-5, CR number: 11271

SECTION 16: Other information

16.1 Further information/disclaimer

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals
Code of Practice, (2011). The information contained within is believed to be accurate at the date of preparation/review. hurst
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related to the supply or use of the information in this material safety data sheet. It is recommended the user make their own
determinations as to the suitability of the information provided to the application in which the product is to be used.

16.2 Preparation information

References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (2011).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013)
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); Canprint: Canberra (2007), Volume 1, 7th Edition.
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).