SAFETY DATA SHEET

According to Safe Work Australia

Printing date 09.01.2023 Revision: 09.01.2023

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: OXYPLUS

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use:
Sanitiser and oxygenator of nutrient solutions

Details of Manufacturer or Importer:
Growth Technology Pty Ltd
1-45 Stockdale Road
O'Connor WA 6163

Phone Number: +61 8 9331 3091

Emergency telephone number: National Poison Information Centre: 13 11 26

2 . HAZARDS IDENTIFICATION

Hazardous Nature:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).


corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H332 Harmful if inhaled.

H227 Combustible liquid.

Signal Word Danger

Hazard Statements
H227 Combustible liquid.
H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.

Precautionary Statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).

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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P330	Rinse mouth.
P370+P378	In case of fire: Use for extinction: CO2, powder or water spray.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P310	Immediately call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
7722-84-1	hydrogen peroxide solution	50%
	Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H332	

Additional information:
Note B: Some substances (acids, bases etc) are placed on the market in aqueous solutions at various concentrations and therefore require different labelling since the hazards vary. For aqueous solutions, the label shown (under 'Labelling') is for the highest concentration range given under the concentration limits, which are shown (under 'Cut-offs'). For the lower concentration ranges, Safety Phrases should be selected according to the normal rules for preparations. Under 'Name' or 'Synonyms' a general designation of the following type is used: '...% nitric acid'. In this case the manufacturer or any other person who markets such a substance should give on the label the percentage concentration of the solution. Example: 45% nitric acid. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis. The use of other data (for example, specific gravity) or descriptive phrases (for example, fuming or glacial) is permissible. (Hydrogen peroxide (H2O2) CAS No. 7722-84-1)

4 . FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, rinse immediately with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion:
If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give plenty of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

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Inhalation: May cause ulceration of nasal tissue, insomnia, nervous tremors with numb extremities, chemical pneumonia, unconsciousness, and death.
Skin Contact: May cause burns, tremor, ataxia, convulsions, dyspnea, pulmonary emboli.
Eye Contact: Causes redness, watering, and itching.
Ingestion: Causes gastrointestional tract irritation with nausea, vomiting, hypermotility, and diarrhea.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Water spray. Do not use dry chemicals or foams. Carbon dioxide or halon may provide limited control.

Specific Hazards Arising from the Chemical:
Combustible liquid.
Slightly explosive in presence of open flames and sparks, of heat, of organic materials, of metals, of acids.
Hydrogen peroxide mixed with magnesium and a trace of magnesium dioxide will ignite immediately.
Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:
Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear Safe Work Australia approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.
Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Keep container dry. Protect from moisture, direct sunlight, heat and other sources of ignition. Keep away from incompatibles such as oxidising agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis. Inspect regularly for damage or leaks.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:	
7722-84-1 hydrogen peroxide solution	
NES	TWA: 1.4 mg/m³, 1 ppm

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Engineering Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below the limits.

Respiratory Protection:
Use a Safe Work Australia approved air-purifying respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
PVC, PVA, nitrile, neoprene, rubber or vinyl gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.
Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	
Form:	Liquid
Colour:	Colourless
Odour:	Odourless
Odour Threshold:	Odourless
pH-Value:	Not applicable
Melting point/Melting range:	-40 °C
Initial Boiling Point/Boiling Range:	106 °C
Flash Point:	Not applicable
Flammability:	Product is not flammable.
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Relative Density:	1.1
Vapour Density:	Not applicable
Solubility in Water:	Soluble in water

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Moisture, heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Reducing agents, combustible materials, organic materials, metals, acids, alkalis.

Hazardous Decomposition Products: No information available

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11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
7722-84-1 hydrogen peroxide solution		
Oral	LD50	6667 mg/kg (mouse)
Dermal	LD50	6667 mg/kg (mouse)

Acute Health Effects
Inhalation:
Harmful if inhaled. May cause ulceration of nasal tissue, insomnia, nervous tremors with numb extremities, chemical pneumonia, unconsciousness, and death.
Skin: May cause burns, tremor, ataxia, convulsions, dyspnea, pulmonary emboli.
Eye: Causes eye damage, redness, watering, and itching.
Ingestion:
Harmful if swallowed. Causes gastrointestional tract irritation with nausea, vomiting, hypermotility, and diarrhea.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes eye damage.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:
Hydrogen peroxide is classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:
Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:
Prolonged exposure may result in skin burns and ulcerations.
Over-exposure by inhalation may cause respiratory irritation.
Repeated or prolonged exposure to the substance can also produce target organs damage.

Existing Conditions Aggravated by Exposure: No information available

12 . ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Aquatic toxicity: No information available

Persistence and Degradability: The products of degradation are less toxic than the product itself.

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

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13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number
ADG, IMDG, IATA 2014

Proper Shipping Name
ADG, IMDG, IATA HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)

Dangerous Goods Class
ADG Class: 5.1 Oxidising substances.

Packing Group:
ADG, IMDG, IATA II

Hazchem Code: 2P

Limited Quantities: 1L

Packagings & IBCs - Packing Instruction: P504, IBC02

Packagings & IBCs - Special Packing Provisions: PP10, B5

Portable Tanks & Bulk Containers - Instructions: T7

Portable Tanks & Bulk Containers - Special Provisions: TP2, TP6, TP24

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
7732-18-5	Water
7722-84-1	hydrogen peroxide solution

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 . OTHER INFORMATION

Creation Date: 24.02.2015

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
LC_{50}: Lethal concentration, 50 percent
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit

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TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer

This MSDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011”

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