

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name Natural Environmental Solutions PTY LTD
Address 20 Central Park Ave, Ashmore, QLD, AUSTRALIA, 4214
Telephone 0413 039 229
Emergency Email info@naturalenviro.co
Synonym(s) HydroSil Ultra
Use(s) SDS DISINFECTANT • WATER TREATMENT
Date 13 October 2016

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

RISK PHRASES

R36/38 Irritating to eyes and skin.

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.
 S17 Keep away from combustible material.
 S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

UN No.	None Allocated	DG Class	None Allocated	Subsidiary Risk(s)	None Allocated
Packing Group	None Allocated	Hazchem Code	None Allocated		

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
HYDROGEN PEROXIDE	H2-O2	7722-84-1	1.5-7.9%
COLLOIDAL SILVER	Ag	97161-97-2	<0.1%
WATER	H2O	7732-18-5	98.4-92.0%

4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
Advice to Doctor	Treat symptomatically.
First Aid Facilities	Eye wash facilities should be available.

5. FIRE FIGHTING MEASURES

Flammability	Oxidising agent - supports combustion. May evolve toxic gases when heated to decomposition. May ignite in contact with incompatible materials.
Fire and Explosion	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing	Prevent contamination of drains or waterways.
Hazchem Code	None Allocated.

6. ACCIDENTAL RELEASE MEASURES

Spillage	Use personal protective equipment. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. CAUTION: Spill site may be slippery.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, preferably outdoor or detached, removed from direct sunlight, reducing agents, acids, alkalis, combustible materials and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.
Handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Stds

Ingredient	Reference	TWA		STEL	
Hydrogen peroxide	SWA (AUS)	1 ppm	1.4 mg/m ³	--	--
Silver, soluble compounds (as Ag)	SWA (AUS)	--	0.01 mg/m ³	--	--

Biological Limits No Biological Limit Value allocated.

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE Wear splash-proof goggles, PVC or rubber gloves and safety glasses. When using large quantities or where heavy contamination is likely, wear: coveralls.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR COLOURLESS LIQUID (5L, 10L AND 25L CONTAINERS)	Solubility (water)	SOLUBLE
Odour	ODOURLESS	Specific Gravity	1 (Approximately)
pH	6.8 to 7.0	% Volatiles	> 60 % (Water)
Vapour Pressure	18 mm Hg @ 20°C	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	100°C	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	AS FOR WATER	Decomposition Temperature	NOT AVAILABLE
Autoignition Temperature	NOT AVAILABLE	Viscosity	NOT AVAILABLE
Partition Coefficient	NOT AVAILABLE		

10. STABILITY AND REACTIVITY

Chemical Stability Stable under recommended conditions of storage.

Conditions to Avoid Avoid heat, sparks, open flames and other ignition sources.

Material to Avoid Oxidising agent. Incompatible with combustible materials, reducing agents (eg. amines), acids (eg. nitric acid), alkalis (eg. hydroxides), metals, heat and ignition sources.

Hazardous Decomposition Products May evolve toxic gases when heated to decomposition.

Hazardous Reactions Polymerization is not expected to occur.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary	Low to moderate toxicity - irritant. This product has the potential to cause adverse health effects with over exposure. Upon dilution, the potential for adverse health effects may be reduced.
Eye	Irritant. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis. May result in burns with prolonged contact.
Inhalation	Irritant. Over exposure to vapours may result in respiratory irritation, nausea, dizziness and headache. Low vapour pressure may reduce the likelihood of inhalation.
Skin	Irritant. Contact may result in irritation, redness, pain and rash.
Ingestion	Low to moderate toxicity. Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea.
Toxicity Data	<p>HYDROGEN PEROXIDE (7722-84-1)</p> <p>LC50 (Inhalation): 2000 mg/m³/4 hours (rat) LCLo (Inhalation): 227 ppm (mouse)</p> <p>LD50 (Ingestion): 2000 mg/kg (mouse) LD50 (Intraperitoneal): 880 mg/kg (mouse) LD50 (Intravenous): 15000 mg/kg (rabbit) LD50 (Skin): 1200 mg/kg (mouse)</p> <p>LD50 (Subcutaneous): 620 mg/kg (rat) LDLo (Skin): 620 500 mg/kg (rabbit)</p> <p>SILVER NITRATE (7761-88-8)</p> <p>LD50 (Ingestion): 50 mg/kg (mouse) LD50 (Intraperitoneal): 17 mg/kg (mouse) LDLo (Ingestion): 800 mg/kg (rat)</p> <p>LDLo (Intraperitoneal): 216 mg/kg (guinea pig) LDLo (Intravenous): 8800 ug/kg (rabbit)</p> <p>LDLo (Subcutaneous): 62 mg/kg (guinea pig)</p>

12. ECOLOGICAL INFORMATION

Environment	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
Ecotoxicity	Toxic to aquatic organisms.
Persistence / Degradability	This product is readily biodegradable.
Mobility	Miscible in water, and likely to be transported considerable distances in soil.

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Reuse where possible. Alternatively, absorb with sand or similar and dispose of to an approved landfill site.
Legislation	Contact the manufacturer for additional information. Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	None Allocated	DG Class	None Allocated	Subsidiary Risk(s)	None Allocated
UN No.	None Allocated	Hazchem Code	None Allocated		
Packing Group	None Allocated				

15. REGULATORY INFORMATION

Poison Schedule	Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
AICS	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional Information	<p>WORKPLACE CONTROLS AND PRACTICES: Unless a less toxic chemical can be substituted for a hazardous substance, ENGINEERING CONTROLS are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.</p> <p>ABBREVIATIONS:</p> <p>ACGIH - American Conference of Industrial Hygienists. ADG - Australian Dangerous Goods.</p> <p>BEI - Biological Exposure Indices(s).</p> <p>CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System.</p> <p>EC No - European Community Number.</p> <p>HSNO - Hazardous Substances and New Organisms. IARC - International Agency for Research on Cancer. mg/m³ - Milligrams per Cubic Metre.</p> <p>NOS - Not Otherwise Specified.</p> <p>pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). ppm - Parts Per Million.</p> <p>RTECS - Registry of Toxic Effects of Chemical Substances. STEL - Short Term Exposure Limit.</p> <p>SWA - Safe Work Australia. TWA - Time Weighted Average.</p>
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16. OTHER INFORMATION continued**Additional Information****HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Report Status

This document has been compiled by NES on behalf of the manufacturer of the product and serves as the manufacturer's Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to NES by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While NES has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, NES accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared By

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End of Report