Company Details:

Waterwell Projects (PTY) LTD

Reg No. 2001/018862/07

Waterwell Projects (PTY) LTD
Unit 4/5 Megazone Park
Hertford Junction R512
Lanseria 1748

Tel: 011 300 9917/8 or 073 077 0973
Fax: 086 605 9360

Poison Centre: **+27 21 689 5227**

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

a) Identification of the substance or preparation :

1.1. Trade / Commercial Name: Waterwell Sudden Blue(packed 4L, 5L, 30kg or 35kg)
1.2. Chemical Name: Hydrogen Peroxide 50%
1.3. Formula: H_2O_2
1.4. Synonyms: Peroxide; hydrogen dioxide; Albone; Inhibine; Perhydrol; Peroxan; Oxydol; Hydroperoxide
1.5. Un No. 2014
1.6. CAS No. 7722-84-1
1.7. EEC No: 231-765-0

b) Information of Distributor :

Waterwell Projects (PTY) LTD
Unit 4 Megazone Park
Hertford Junction R512
Lanseria 1748
Tel: 011 300 9917/8 or 073 077 0973
Fax: 086 605 9360

Alternate suppliers:

CJP Chemicals (Pty) Ltd
P. O. Box 1353
Cresta 2118
32 Tiger Moth ave
Aeroton 2190
Tel: 011 494 6700
Fax: 011 494-6701

or:

Crossmill Chemicals CC
P O Box 1272
Lonehill 2062
34 Renico Cresent Lea Glen,
Roodepoort, Gauteng 2195
Tel: 011 472 4986
Fax: 011 472 0730

2. COMPOSITION / INFORMATION ON INGREDIENTS

Material / Component	%	CAS No	Risk phrases
Hydrogen Peroxide	40-60%	7722-84-1	O, C, Xn; R5- R8-R35-R20/22
Water	60-40%	7732-18-5	Not classified

3. HAZARDS IDENTIFICATION

3.1 Emergency Overview:

Oxidizing Agent
Contact with combustibles may cause fire.
Fire could produce irritating or poisonous gases.

Runoff from fire-control or dilution water could cause pollution
Decomposes yielding oxygen that supports combustion of organic matters and can cause overpressure if confined.

3.2 Health effects:

If inhaled, could be harmful.
Contact causes severe burns to skin and eyes.
Irritating to skin, eyes, and mucous membranes.
Observe for bronchitis, or possible pulmonary edema.
May cause severe eye damage.
Abdominal distention if ingested.

4. FIRST AID MEASURES

4.1 Eyes: Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids intermittently. See a physician or ophthalmologist.

4.2 Skin: Wash with large amounts of water. If irritation occurs, see a physician.

4.3 Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs, call a physician.

4.4 Ingestion: If swallowed, drink plenty of water immediately to dilute. Do not induce vomiting or give anything by mouth to an unconscious person. See a physician.

4.5 Notes to Physician: Hydrogen peroxide at these concentrations is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful ophthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion and the unlikelihood of systemic effects, attempts at evacuating the stomach via emesis induction of gastric lavage should be avoided. There is remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Preferably water or water fog. Carbon dioxide and dry Chemical may also be used.

5.2 Special Firefighting: Any tank or container surrounded by fire should be flooded with water for cooling. Wear full protective clothing and self-contained breathing apparatus.

5.3 Degrees of Fire and Explosion Hazard: Product is noncombustible. On decomposition H202 releases oxygen which may intensify fire.

5.4 Hazardous Decomposition Products: Oxygen which supports combustion.

6. ACCIDENTAL RELEASE MEASURES

Dilute with a large volume of water and hold in a pond or dyke area until hydrogen peroxide decomposes. Hydrogen peroxide may be decomposed by adding sodium metabisulfite or

sodium sulphite after diluting to about 5%. Dispose according to methods outlined for waste disposal.

.

Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire.

7. HANDLING AND STORAGE

7.1 HANDLING: Wear chemical splash-type mono goggles and full-face shield, impervious clothing, such as rubber, PVC, etc., and rubber or neoprene gloves and shoes. Avoid cotton, wool and leather. Avoid excessive heat and contamination. Contamination may cause decomposition and generation of oxygen gas which could result in high pressures and possible container rupture. Hydrogen peroxide should be stored only in vented containers and transferred only in a prescribed manner. Never return unused hydrogen peroxide to original container, empty drums should be triple rinsed with water before discarding. Utensils used for handling hydrogen peroxide should only be made of glass, stainless steel, aluminium or plastic.
7.2 STORAGE: Store drums in cool areas out of direct sunlight and away from combustibles.
7.3 VENTILATION: Provide mechanical general and/or local exhaust ventilation to prevent release of vapour or mist into the work environment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering controls: Ventilation should be provided to minimize the release of hydrogen peroxide vapors and mists into the work environment. Spills should be minimized or confined immediately to prevent release into the work area. Remove contaminated clothing immediately and wash before reuse.
8.2 PERSONAL PROTECTIVE EQUIPMENT
8.2.1 EYES AND FACE: Use chemical splash-type mono goggles and a full-face shield made of polycarbonate, acetate, polycarbonate/acetate, PETG or thermoplastic.
8.2.2 RESPIRATORY: If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA), or other approved atmospheric-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)). DO NOT use any form of air-purifying respirator (APR) or filtering facepiece (AKA dust mask), especially those containing oxidizable sorbants such as activated carbon.
8.2.3 PROTECTIVE CLOTHING: For body protection wear impervious clothing such as an approved splash protective suit made of SBR Rubber, PVC (PVC Outershell w/Polyester Substrate), Gore-Tex (Polyester trilaminate w/Gore-Tex), or a specialized HAZMAT Splash or Protective Suite (Level A, B, or C). For foot protection, wear approved boots made of NBR, PVC, Polyurethane, or neoprene. Over boots made of Latex or PVC, as well as fire-fighter boots or specialized HAZMAT boots are also permitted. DO NOT wear any form of boot or over boots made of nylon or nylon blends. DO NOT use cotton, wool or leather, as these materials react RAPIDLY with higher concentrations of hydrogen peroxide. Completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in a fire.
GLOVES:
For hand protection, wear approved gloves made of nitrile, PVC, or neoprene.

DO NOT use cotton, wool or leather for these materials react RAPIDLY with higher concentrations of hydrogen peroxide. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR	Odorless
APPEARANCE:	Clear, colorless liquid
AUTOIGNITION TEMPERATURE:	Non-combustible
BOILING POINT:	110°C (40%); 114°C (50%)
COEFFICIENT OF OIL / WATER:	Not available
DENSITY / WEIGHT PER VOLUME:	Not available
EVAPORATION RATE:	> 1 (Butyl Acetate = 1)
FLASH POINT:	Non-combustible
OXIDIZING PROPERTIES:	Strong oxidizer
PERCENT VOLATILE:	100
pH:	<= 3.0
SOLUBILITY IN WATER:	100 %
SPECIFIC GRAVITY:	(H20 = 1) 1.15 @ 20°C/4°C (40%); 1.19 @ 20°C/4°C (50%)
VAPOR DENSITY:	Not available (Air = 1)
VAPOR PRESSURE:	22 mmHg @ 30°C (40%); 18.3 mmHg @ 30°C (50%)
COMMENTS:	
pH (1% solution) :	5.0 - 6.0

10. STABILITY AND REACTIVITY

Stability	Stable (heat and contamination could cause decomposition).
Hazardous Polymerisation:	Will not occur
Conditions to Avoid:	Excessive heat or contamination could cause product to become unstable.
Materials to avoid:	Dirt, organics, cyanides and combustibles such as wood, paper, oils, etc.
Major Contaminates that Contribute to Instability:	Iron and other heavy metals, copper alloys and caustic.
Incompatibility:	Reducing agents, wood, paper and other combustibles (see above)
Hazardous Decomposition Products:	Oxygen that supports combustion.
Sensitivity to Mech Impact:	No data available
Sensitivity to Static Discharge:	No data available

11. TOXICOLOGICAL INFORMATION

Eye Contact:	Severe irritant/corrosive (rabbit) (70% H2O2) Ref. ICG/T-79.027
Skin Contact:	Severe irritant/corrosive (rabbit) (50% H2O2)

Ref. 189-1079

Skin Absorption:	LD50 >6.5 g/kg (rabbit) (70% H_2O_2) Ref. ICG/T-79.027
Inhalation:	LC50 >0.17 mg/L (rat) (50% H_2O_2) Ref. 189 -1080
Ingestion:	LD50 >225 mg/kg and <1200 mg/kg (rat) (50% H_2O_2) Ref. 186 – 914
Acute Effects from Overexposure:	Severe irritant/corrosive to eyes, skin and gastrointestinal tract. May cause irreversible tissue damage to the eyes, Including blindness, inhalation of mist or vapours may be severely irritating to nose, throat and lungs.
Chronic Effects from overexposure:	There are reports of limited evidence of carcinogenicity of hydrogen peroxide to mice administered high concentrations in their drinking water (IARC Monograph 36, 1985). However, the international agency for research on cancer concluded that hydrogen peroxide could not be classified as to its carcinogenicity to humans (Group III carcinogen).

12. ECOLOGICAL INFORMATION

Environmental Fate:	H_2O_2 in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. H_2O_2 half life in freshwater ranged from 8 hours to 20 days, in air from 10-20 hours, and in soils from minutes to hours depending upon microbiological activity and metal contaminants.
Environmental Effects:	Channel catfish: 96 hr LC50 = 37.4 mg/ℓ Fathead minnow: 96 hr LC50 = 16.4 mg/ℓ Daphnia magna: 24 hr EC50 = 7.7 mg/ℓ Daphnia pule: 48 hr LC50 = 2.4 mg/ℓ Physa sp: 96 hr LC50 = 17.7 mg/ (freshwater snail)

For more information refer to ECETOC "Joint Assessment of Commodity Chemicals, No. 22, Hydrogen Peroxide." ISSN-0773-6339, January 1993

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:	An acceptable method of disposal is to dilute with a large amount of water and allow the hydrogen peroxide to decompose followed by discharge into a suitable treatment system in accordance with all regulatory agencies. Because acceptable methods of disposal may vary by location and because regulatory requirements may change, the appropriate regulatory agencies should be contacted prior to disposal.

14. TRANSPORT INFORMATION

DOT Classification:	5.1 (Oxidiser)
DOT Labels:	Oxidiser, corrosive
DOT Marking:	Hydrogen peroxide, aqueous solutions with more than 40 percent but not more than 60 percent hydrogen peroxide. UN 2014
DOT Placard:	5.1 (Oxidiser)
UN Number:	UN 2014
Hazardous Substance / RQ:	Not applicable
49 STCC Number:	4918776
Precautions to be taken in Transportation:	Protect from physical damage. Keep drums in upright position. Drums should not be stacked in transit. Do not store drums on wooden pallets.
Other Shipping Information:	Aluminium tanks, drum/DOT 42D, Packing group II

15. REGULATORY INFORMATION

HAZARD AND RISK PHRASE DESCRIPTIONS:
EC Symbols: O (Oxidizer)
C (Corrosive)
Xn (Harmful)
EC Risk Phrases: R5 (Heating may cause an explosion.)
R8 (Contact with combustible material may cause fire)
R20/22 (Harmful by inhalation and if swallowed.)
R35 (Causes severe burns.)

16.FURTHER INFORMATION

No further information available.

The information herein is given in good faith and to the best of our knowledge at the current date. The accomplishment of the instructions herein does not exempt the user from following the legal and administrative regulations relative to product, environmental safety and hygiene, which are user's own responsibility. In case of mixture with other substances, ensure that other risks are not generated.

Date of Revision: ***21 August 2014 (general revision)***