MATERIAL SAFTY DATA SHEET

HYDROGEN PEROXIDE 50%

PRODUCT:HYDROGEN PEROXIDE 50%

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

WATER SPECIALIST SUPPLY CO.,LTD.
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PREPARED BY..... Water Specialist Supply CO.,LTD

PREPARATION DATE..... 2/September/16

PRODUCT NAME.....Hydrogen peroxide.

CHEMICAL FORMULA.....H2O2l .

MOLECULAR WEIGHT.....34.01 g/mol.

CHEMICAL FAMILY..... Peroxygen .

PRODUCT USE..... It is a versatile chemical and is used extensively as an oxidising agent for textile , pulp & paper , leather-hides , electronics , food , environmental , cosmetics and other applications.

EMERGENCY PHONE NO..... (+66)34-440-851 to 3 or (+66)95-367-5790

SECTION 02 : COMPOSITION/INFORMATION ON INGREDIENT

Component	# CAS No.	Percent	Hazardous Class
Hydrogen Peroxide	7722-84-1	50%	Oxidixer
Water	7732-18-5	50%	None

This material is classified as hazardous under Federal OSHA regulation.

SECTION 03: HAZARDS IDENTIFICATION

Emergency Overview

Color: colourless

Physical state: liquid

Odor: pungent

DANGER!
STRONG OXIDIZER.
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE OR EXPLOSIVE DECOMPOSITION. CAUSES EYE AND SKIN BURNS.
MAY CAUSE BLINDNESS.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
HARMFUL IF SWALLOWED.

Potential Health Effects

Primary routes of exposure:

Inhalation and skin contact.

Signs and symptoms of acute exposure:

Corrosive to skin and eyes. May cause irritation of respiratory tract.
Effects due to ingestion may include: gastrointestinal symptoms ulceration, burns, accumulation of fluid in the lungs which may be delayed for several hours.

Skin :

Slightly toxic. Corrosive. (based on animal studies)

Inhalation:

Slightly toxic. (based on animal studies)

Eyes:

Corrosive. (based on animal studies)

Ingestion:

No more than moderately toxic. (based on animal studies)

SECTION 04 : FIRST AID MEASURES

INSTRUCTIONS:

Inhalation:

If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If inhaled, remove to fresh air. Get medical attention.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Destroy contaminated shoes.

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Notes to physician:

Hydrogen Peroxide, at this concen-tration, is a strong oxidizer. Direct contact with eyes is sufficiently likely to cause corneal damage, even if washed away immediately, so that careful opthalmological evaluation is recommended. Because of the likelyhood of corrosive effects on the gastro-intestinal tract after ingestion, and the unlikelyhood of systemic effects, attempts at evacuatingthe stomach via emesis induction or gastric lavage should be avoided.There is a remote possibility, however , that a naso - gastric or orogastric tube may be required for the reduction of severe distention due to gas formation .

SECTION 05 :FIRE FIGHTING MEASURES

Flash Point Autoignition: Non - Flammable ,:Non - Combustible

Temperature:

Extinguishing Media: Water / Water Fog

Special Fire Fighting Procedures : Any tank or container surrounded by fire should be flooded with water for cooling. If H2O2 is leaking, wear full protective clothing and certified ,self - contained breathing apparatus.

Degree of Fire and Explosion Hazard: Decomposition of Hydrogen Per-oxide releases oxygen which may intensify fire. Hydrogen Peroxide itself is non-combustible.

SECTION 06 : ACCIDENTAL RELEASE MEASURES

In case of spill or leak:

Stop the leak if you can do so without risk. Ventilate the area. Flush with plenty of water. Avoid contact with cellulose, paper, sawdust or similar substances.
Risk of self-ignition or promotion of fires. Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterisation and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

SECTION 07 : HANDLING AND STORAGE

Handling Procedures :

General information on handling:

Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or mist.
Do not taste or swallow.
Wash thoroughly after handling.
Use only with adequate ventilation.
Avoid contamination.
Keep away from contact with clothing and other combustible materials.
Store in tightly closed container.
Emptied container retains vapor and product residue.
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Storage Requirements :

General information on storage conditions:

Store away from combustibles and incompatible materials. Store in cool, dry, well ventilated area away from sources of ignition such as flame, sparks and static electricity. Refer to National Fire Protection Association (NFPA) 43A, Code for the Storage of Solid and Liquid Oxidizers.

Storage incompatibility – General:

Store separate from acids, alkalies, reducing agents, and combustibles. Store separate from: Metallic oxides Organic materials
Metallic oxides

SECTION 08 : EXPOSE CONTROL/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Respiratory protection:

Avoid breathing vapor or mist. When airborne exposure limits are exceeded, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limits may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact.

When handling this material, gloves of the following type(s) should be worn:
-Neoprene
-Polyvinylchloride
-Impervious butyl rubber gloves

Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Eye protection:

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

Body protection:

Rubber boots with neoprene or pvc soles., Note: As the water content of hydrogen peroxide evaporates, cotton, rayon, and wool fibers are particularly subject to spontaneous combustion., Where there is significant risk of sudden splash or spray, it is advised that an apron or rubber suit be worn.

SECTION 09 :PHYSICAL AND CHEMICAL PROPERTIES

Physical state :	Liquid.
Appearance :	Colourless.
Odour :	Odourless.
PH :	1.0 - 3.0
Vapor Pressure:	18 mmHg (68 °F (20 °C)) .
Vapor density (AIR=1) :	Not determined .
Evaporation Rate :	Not available .
% Volatiles:	100 % .
Boiling Point :	237 °F (114 °C)
Freezing Point :	-62 °F (-52 °C)
Decomposition :	Not available.
Solubility in water % by Weight:	100.
Molecular Formula :	H_2O_2
Molecular Weight :	34.01 g/mol

SECTION 10:STABILITY AND REACTIVITY

Stability:

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

Incompatibilities :
Metals
Organic materials
Reducing agents
Metallic oxides
Dusts
Combustible materials (e.g., wood, sawdust) Alkaline materials

Hazardous Decomposition Product :

This material decomposes if contaminated, causing fire and possible explosions. Oxygen can be liberated at temperatures above ambient.

Hazardous Polymerization : Has not be reported.
Conditions to Avoid: Material decomposes with the potential to produce a rupture of unvented closed containers/Excessive heat.

SECTION 11 : TOXICOLOGICAL INFORMATION

Acute toxicity

Oral:

No more than moderately toxic. (rat) LD50 = 225-1200 mg/kg (50%) .
Moderately toxic. (rat) LD50 = 75 mg/kg (70%) .

Dermal:

Practically nontoxic. (rat) LD50 >6500 mg/kg (70%) .

Inhalation:

Slightly toxic. (rat) LC0 > 0.17 mg/l. (50 %)

Skin Irritation:

Corrosive. (rabbit) (50 %)
Corrosive. (rabbit) (70 %)

Eye Irritation:

Corrosive. (rabbit) (70 %)

Repeated dose toxicity

Repeated drinking water administration to rat and mouse / affected organ(s): GI tract / signs: irritation Repeated inhalation administration to rat and mouse / affected organ(s): nose / signs: irritation

Repeated inhalation administration to dog / affected organ(s): upper respiratory tract, lung / signs: irritation, emphysema

Chronic oral administration to laboratory animal / affected organ(s): stomach / signs: ulceration

Carcinogenicity

Chronic drinking water administration to rat and mouse / affected organ(s): GI tract / Increased incidence of tumors was reported.

Classified by the International Agency for Research on Cancer as: Group 3: Unclassifiable as to carcinogenicity in humans.

Genotoxicity

Assessment in Vitro:

Genetic changes were observed in laboratory tests using: bacteria, animal cells

Assessment in Vivo:

No genetic changes were observed in laboratory tests using: animals

Human experience

Inhalation:

Throat: irritation. (based on reports of occupational exposure to workers)

Skin contact:

Skin: bleaching of hair. (based on reports of occupational exposure to workers)

Eye contact:

Eye: irritating. (based on reports of occupational exposure to workers)

Ingestion:

GI tract: bloating, ulceration, burns. (accidental exposure to concentrated solutions)
Lung: accumulation of fluid in the lungs, death.

SECTION 12 : ECOLOGICAL CONSIDERATION

Ecotoxicology

Data for HYDROGEN PEROXIDE 50%

Aquatic toxicity data:

Slightly toxic. Fish 96 h LC50 between 10 - 37 mg/l

Aquatic invertebrates:

Moderately toxic. Daphnia magna (Water flea) EC50 = 7.7 mg/l Moderately toxic. Daphnia pulex (Water flea) EC50 = 2.4 mg/l

Algae:

Highly toxic. EC50 = 0.85 mg/l

Microorganisms:

Slightly toxic. Bacteria EC50 = 30 mg/l

SECTION 13 : DISPOSAL CONSIDERATION

Dilution with water is the preferred method of disposal. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

SECTION 14 : TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number	:	2014
Proper shipping name	:	Hydrogen peroxide, aqueous solutions
Class	:	5.1
Subsidiary hazard class	:	(8)
Packaging group	:	II
Marine pollutant	:	no

International Maritime Dangerous Goods Code (IMDG)

UN Number	:	2014
Proper shipping name	:	Hydrogen peroxide, aqueous solutions
Class	:	5.1
Subsidiary hazard class	:	(8)
Packaging group	:	II
Marine pollutant	:	no

SECTION 15 :REGULATORY INFORMATION

Lebelling according to EC Directives

R-phrases: - - -

S-phrases: - - -

German regulations

Water pollution class : 0 (generally nonpolluting substance)

SECTION 16 :OTHER INFORMATION

Disclaimer :

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