

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : Huwa-San TR-50
 Synonyms : Stabilized hydrogen peroxide
 Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use
 Function or use category : Disinfectant

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

ROAM TECHNOLOGY NV
 I.Z. Poort Genk 6835, Geleenlaan 24
 3600 Genk / Belgium
 T +32 89 44 00 42
info@roamtechnology.com - www.roamtechnology.com.com

New Zealand Distributor

AquaSan International Ltd
 Unit 1/36 Bollard Rd
 2121 Tuakau / New Zealand
 T +64 21 020 0840

1.4. Emergency telephone number

Emergency: 111
 New Zealand National Poisons Centre: 0800 764 766

2.1. Hazards identification

HSNO Classification

Oxidizing liquids	5.1.1B	Medium hazard
Acute toxicity (oral):	6.1D	
Specific Target Organ Systemic Toxicity (Repeated exposure; oral)	6.9B	
Specific Target Organ Systemic Toxicity (Repeated exposure; inhalation)	6.9B	
Serious eye damage/eye irritation	8.3A	
Aquatic toxicity (Acute) (fish)	9.1D	
Aquatic toxicity (Acute) (crustacean)	9.1D	
Aquatic toxicity (Acute) (algal)	9.1D	
Ecotoxic to terrestrial vertebrates	9.3C	
Aquatic toxicity (Chronic)	9.1C	

2.2. Label elements

Labelling according to HSNO

Hazard pictograms



Signal word

: **Danger**

Hazard statements

: May intensify fire; oxidizer.
 Harmful if swallowed.
 May cause damage to organs through prolonged or repeated exposure (oral, inhalation).
 Causes serious eye damage.
 Harmful to aquatic life with long lasting effects.
 Harmful to terrestrial vertebrates.

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Precautionary statements : Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep/Store away from clothing and other combustible materials.
Take any precaution to avoid mixing with combustibles.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear eye protection, face protection, protective clothing, protective gloves
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Get medical advice/attention if you feel unwell.
Store locked up.
Dispose of contents/container to local and/or national regulations

2.2.2. Contains hydrogen peroxide solution ... %

2.3. Other hazards

Other hazards not contributing to the classification : Danger of decomposition under influence of heat. Maintains combustion of flammable substances. Risk of decomposition in contact with incompatible materials (metal oxides, metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn), metal salts, bases, reducing agents).

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
hydrogen peroxide solution ... %	(CAS No) 7722-84-1	49 – 49,9 %

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Respiratory arrest: artificial respiration or oxygen. Prevent cooling by covering the victim (no warming up). Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove the victim into fresh air. Keep warm. Oxygen or artificial respiration if needed.
Respiratory problems: Call a physician immediately.

First-aid measures after skin contact : Wash immediately with plenty of water. Remove all contaminating clothes and shoes. Wash contaminated clothing with plenty of water. Take victim to a physician if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Take victim to an ophthalmologist or physician. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give small amounts of water to drink. Do not induce vomiting. Consult a physician if you feel unwell. Ingestion of large quantities: immediately to hospital.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Headache. Cough. Nausea. Slight irritation. Vomiting. May cause respiratory irritation. Dizziness.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin. Paleness. Causes skin irritation.

Symptoms/injuries after eye contact : Corrosion of the eye tissue. Permanent eye damage. Causes serious eye damage.

Symptoms/injuries after ingestion : Burns to the gastric/intestinal mucosa. Abdominal pain. Dizziness. Headache. Disturbances of consciousness. Vomiting

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Dry/sore throat. Irritation of the eye tissue.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment : Symptomatic treatment.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water of water mist. Sand.
Unsuitable extinguishing media : Dry chemical powder. No carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

- Fire hazard : The product itself does not burn, but it is explosive when mixed with combustible material. Contact with combustible material may cause fire. Risk of pressure build-up and burst due to decomposition in confined spaces and pipes.
Explosion hazard : INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk.

5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Wear respiratory protection (AS/NZS 1716).
Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus. Wear respiratory protection (AS/NZS 1716). Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Safety glasses. Protective clothing.
Emergency procedures : Avoid contact with skin, eyes and clothing. Never return spills in original containers for re-use. Ensure adequate air ventilation. Wear recommended personal protective equipment. Remove all sources of ignition. Keep people away from and upwind of spill/leak.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent spreading in sewers. Product should not be released into the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Dam up the liquid spill.
Methods for cleaning up : Dilute directly spill with plenty of water. Take up liquid spill into a non combustible material e.g.: sand. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Cover spill with non combustible material, e.g.: sand/earth. Spill must not return in its original container. Take collected spill to manufacturer/competent authority. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Dam up the liquid spill. Notify authorities if liquid enters sewers or public waters.

6.4. Reference to other sections

Reference to other sections (8, 13). See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle and open the container with care. Keep the substance free from contamination. Do not discharge the waste into the drain. Keep away from sources of ignition - No smoking. Observe strict hygiene. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin, eyes and clothing. Wear cold insulating gloves/face shield/eye protection. Avoid all unnecessary exposure. Ensure adequate ventilation.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container in a well-ventilated place. Keep cool. Store in original container. Keep away from heat and sources of ignition.
Incompatible products : Risk of decomposition in contact with non-tolerant materials (Organic materials, reducing agents, combustible materials, rust, dirt, metal oxides, metal ions, metal salts, bases).
Incompatible materials : Tin, Chromium (Cr), Copper (Cu), Iron (Fe), Manganese (Mn), Nickel (Ni), Zinc (Zn).
Storage temperature : 10 - 30 °C

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Heat and ignition sources	: Keep away from heat and sources of ignition..
Prohibitions on mixed storage	: combustible materials. reducing agents. (strong) acids. (strong) bases. highly flammable materials. metals. organic materials. alcohols.
Storage area	: Store in a cool area. Keep out of direct sunlight. Store in a dark area. Keep container in a well-ventilated place. Fireproof storeroom. Under a shelter/in the open. Keep only in the original container. Meet the legal requirements.
Special rules on packaging	: closing. nonhermetical. with pressure relief valve. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: SUITABLE MATERIAL stainless steel. aluminium. polyethylene. glass. stoneware/porcelain. MATERIAL TO AVOID: monel steel. iron. copper. zinc. lead. nickel.

7.3. Specific end use(s)


No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Substance	CAS	TWA	
		ppm	mg/m ³
hydrogen peroxide	7722-84-1	1	1.4

8.2. Exposure controls

Appropriate engineering controls	: Avoid contact with skin, eyes, or clothing. Wash hands and face before break and at end of works. Measure the concentration in the air regularly. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Do not eat, drink and do not smoke in areas where product is used. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.
Personal protective equipment	: 
Materials for protective clothing	: GIVE GOOD RESISTANCE: natural rubber. nitrile rubber. butyl rubber. polyethylene. PVC. viton. GIVE LESS RESISTANCE: neoprene. polyethylene/ethylenevinylalcohol. GIVE POOR RESISTANCE: leather. PVA. natural fibres.
Hand protection	: Gloves. Wear protective gloves (AS/NZS 2161.1) from butyl-rubber, natural rubber, nitrile rubber. Do not wear cotton or leather gloves
Eye protection	: Face shield. Chemical goggles or safety glasses (AS/NZS 1337). Eye wash bottle in the near surroundings.
Skin and body protection	: Corrosion-proof, chemical resistant protective clothing. Do not wear leather shoes. Safety shower in the near surroundings.
Respiratory protection	: High gas/vapour concentration: gas mask with filter type B-P (AS/NZS 1716). Wear appropriate mask.
Environmental exposure controls	: Reference to other sections (6.2, 6.3, 13).
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 34,01 g/mol
Colour	: Colourless.
Odour	: Almost odourless. Pungent.
Odour threshold	: No data available
pH	: 0,4 – 1,8; pH solution: 50%.
Relative evaporation rate (butylacetate=1)	: ≥ 1
Melting point	: Not applicable
Freezing point	: -52 °C
Boiling point	: 114 °C (50%)
Flash point	: Not applicable
Self ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 12 hPa

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Vapour pressure at 50 °C	: 72 hPa
Relative vapour density at 20 °C	: > 1
Relative density	: 1,2
Density	: 1,190 – 1,200 g/cm ³ (15°C)
Solubility	: Soluble in water. Soluble in ethanol. Soluble in ether. Water: Complete
Log Pow	: -1,57 (100%)
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1,17 - 1,249 mPa.s
Explosive properties	: No data available
Oxidising properties	: May intensify fire; oxidiser
Explosive limits	: No data available

9.2. Other information

Minimum ignition energy	: Not applicable
VOC content	: Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes slowly on exposure to light: oxidation resulting in increased fire or explosion risk with pressure rise and possible bursting of container. This reaction is accelerated on exposure to impurities and on exposure to temperature rise. Reacts violently with combustible materials: risk of spontaneous ignition. With (some) metals and their compounds. With (some) acids/bases. With organic material. With oxygen compounds. With (strong) reducers. Reacts with combustible materials: (increased) risk of fire/explosion. Reacts with (strong) oxidizers: (increased) risk of fire/explosion. This reaction is accelerated on exposure to impurities. Release of oxygen in contact with impurities, decomposition catalysts and incompatible substances.

10.2. Chemical stability

Unstable on exposure to heat. Unstable on exposure to light.

10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity. Risks of decomposition by heat sources or in contact with incompatible products.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Keep the substance free from contamination. Refer to Section 10 on Incompatible Materials.

10.5. Incompatible materials

Combustible materials, reducing agents, organic materials, bases, metal oxides, metal ions (e.g. Mn, Fe, Ce, Ni, Cr, Zn), metals salts, rust, dirt. Oxidizing agent.

10.6. Hazardous decomposition products

Oxygen

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

Hydrogen Peroxide solution ...% (CAS 7722-84-1)	
LD50 oral rat	> 500 mg/kg Hydrogen peroxide 50%
LD50 dermal rabbit	> 4000 mg/kg 50% H2O2
LC50 inhalation rat (mg/l)	2 mg/l/4h Hydrogen peroxide 100%
ATE (dermal)	2000,000 mg/kg

Irritation and Corrosion	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure (oral, inhalation).
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: Harmful to aquatic life with long lasting effects.

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Hydrogen Peroxide solution ...% (CAS 7722-84-1)	
LC50 fishes 1	16,4 mg/l (96 h; Pimephales promelas; Solution >=50%)
EC50 Daphnia 1	2,4 mg/l (48 h; Daphnia pulex; Solution >=50%)
EC50 other aquatic organisms 1	2,5 mg/l (72 h; Chlorella vulgaris)
LC50 fish 2	37,4 mg/l (96 h; Ictalurus punctatus; Solution >=50%)
EC50 Daphnia 2	7,7 mg/l (24 h; Daphnia magna; Solution >=50%)
Threshold limit algae 1	0,1 mg/l (72 h; Chlorella vulgaris)

12.2. Persistence and degradability

Hydrogen Peroxide solution ...% (CAS 7722-84-1)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components of the mixture available. Photolysis in the air.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Hydrogen Peroxide solution ...% (CAS 7722-84-1)	
Log Pow	-1,36
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. The diluted aqueous solution can be released into drain if it is in accordance with local regulations; the undiluted waste must not be released into drain. Can be incinerated, when in compliance with local regulations. Rinse package before disposal. Empty containers that will be returned to the manufacturer must not be rinsed with water. Empty containers/packages must not be used for other purposes.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No	: 2014
UN-No.(IATA)	: 2014
UN-No. (IMDG)	: 2014

14.2. UN proper shipping name

Proper Shipping Name	: HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Transport document description	: UN 2014 Hydrogen peroxide, aqueous solution, 5.1 (8), II, (E)

14.3. Transport hazard class(es)

Class (UN)	: 5.1
Classification code (UN)	: OC1
Class (IATA)	: 5
Class (IMDG)	: 5.1
Subsidiary risk (ONU)	: 8
Subsidiary risk (IATA)	: 8

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Hazard labels (UN) : 5.1, 8



Division (IATA) : 5.1

Hazard labels (IATA) : 5.1, 8



14.4. Packing group

Packing group (UN) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Transport regulations (ADR) : Subject

Transport regulations (RID) : Subject

State during transport (ADR-RID) : as liquid. Substance assigned to class 8 for its corrosion to metals

Hazard identification number (Kemler No.) : 58

Classification code (UN) : OC1

Orange plates :



Tunnel restriction code : E

14.6.2. Transport by sea

Transport regulations (IMDG) : Subject

14.6.3. Air transport

Transport regulations (IATA) : Forbidden

14.6.4. Inland waterway transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations

- Hazardous Substances and New Organisms (HSNO) Act 1996
- Hswa Workplace Exposure Standards and Biological Exposure Indices
- Globally harmonized system of classification and labelling of chemicals (GHS)
- New Zealand Environmental Protection Authority (EPA) - approval number HSR001326

SECTION 16: Other information

Indication of changes:

ph adjustment.

Data sources

: The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed, unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheets offers no quality specification for the substances/preparations/mixtures in questions.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product