Huwa-San TR-20

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 30/11/2010 Revision date: 30/04/2016 Supersedes: 30/04/2015 Version: 1.5

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

1.1. Product identifier

Product form : Mixture

Product name : Huwa-San TR-20

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

Function or use category : Disinfectant., Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ROAM TECHNOLOGY NV
I.Z. Poort Genk 6835, Geleenlaan 24
3600 Genk / Belgium
T 0032 89 44 00 42
info@roamtechnology.com - www.huwasan.com

1.4. Emergency telephone number

Country	Organisation	Address	Emergency phone number
BELGIUM	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302

Eye Dam. 1 H318

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS07

CLP Signal word : Danger

Hazard statements (CLP) : H302 - Harmful if swallowed
H318 - Causes serious eye damage

Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician
P330 - Rinse mouth
P501 - Dispose of contents/container to local and/or national regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrogen peroxide solution ... %	(CAS No) 7722-84-1 (EC no) 231-765-0 (EC index no) 008-003-00-9 (REACH-no) 01-2119485845-22	19,0 – 19,9	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 STOT SE 3, H335

Name	Product identifier	Specific concentration limits
hydrogen peroxide solution ... %	(CAS No) 7722-84-1 (EC no) 231-765-0 (EC index no) 008-003-00-9 (REACH-no) 01-2119485845-22	(5 =< C < 8) Eye Irrit. 2, H319 (8 =< C < 50) Eye Dam. 1, H318 (35 =< C) STOT SE 3, H335 (35 =< C < 50) Skin Irrit. 2, H315 (50 =< C < 70) Skin Corr. 1B, H314 (50 =< C < 70) Ox. Liq. 2, H272 (70 =< C) Skin Corr. 1A, H314 (70 =< C) Ox. Liq. 1, H271

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service 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 : EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing.

Symptoms/injuries after skin contact : ON CONTINUOUS EXPOSURE/CONTACT: Tingling/irritation of the skin.

Symptoms/injuries after eye contact : Irritation of the eye tissue. Inflammation/damage of the eye tissue.

Symptoms/injuries after ingestion : Vomiting. Abdominal pain.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : EXTINGUISHING MEDIA FOR SURROUNDING FIRES: Preferably: quantities of water. Water spray.

Unsuitable extinguishing media : Dry chemical powder. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.

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.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

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 : Mark the danger area. No naked flames. Wash contaminated clothes. In case of reactivity hazard: consider evacuation.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill.

Methods for cleaning up : Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. See "Material-handling" for suitable container materials. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

Reference to other sections (8, 13).

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. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. reducing agents. (strong) bases. oils-fats. metals. cellulosic materials. organic materials.

Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dark area. Provide for a tub to collect spills. Keep only in the original container. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. 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. synthetic material. glass. MATERIAL TO AVOID: steel. lead. iron. copper. zinc. nickel.

7.3. Specific end use(s)

Refer to manufacturer/supplier for information on identified use(s).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Materials for protective clothing : GIVE EXCELLENT RESISTANCE: butyl rubber. natural rubber. nitrile rubber. polyethylene. viton. GIVE GOOD RESISTANCE: polyethylene/ethylenevinylalcohol. PVC. GIVE LESS RESISTANCE: neoprene. GIVE POOR RESISTANCE: PVA. natural fibres.

Hand protection : Gloves.

Eye protection : Safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : Respiratory protection not required in normal conditions.

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.
Odour threshold	:	No data available
pH	:	1,5 - 2,5
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	-17 °C
Freezing point	:	No data available
Boiling point	:	104 °C
Flash point	:	Not applicable
Self ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	> 1,1
Density	:	1060 - 1080 kg/m³
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in ether. Water: Complete
Log Pow	:	-1,36
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

Minimum ignition energy	:	Not applicable
VOC content	:	Not applicable
Other properties	:	Clear. Physical properties depending on the concentration.

SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes slowly on exposure to light: oxidation which increases fire hazard. This reaction is accelerated on exposure to impurities and on exposure to temperature rise. Reacts with combustible materials, with organic material and with (strong) reducers: (increased) risk of fire/explosion.

10.2. Chemical stability

Unstable on exposure to air.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

Huwa-San TR-20 (7722-84-1)	
LD50 oral rat	1,193 - 1,27 mg/kg Hydrogen peroxide 35%
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	2 mg/l/4h Hydrogen peroxide 100%
ATE (dermal)	2000,000 mg/kg

Huwa-San TR-20 (7722-84-1)	
ATE (oral)	500,000 mg/kg bodyweight
ATE (dust,mist)	1,500 mg/l/4h

Skin corrosion/irritation : Not classified
pH: 1,5 - 2,5

Serious eye damage/irritation	:	Causes serious eye damage. pH: 1,5 - 2,5
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
IARC group	:	3

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable.

Ecology - water : Mild water pollutant (surface water). Harmful to fishes. Toxic to invertebrates (Daphnia). Toxic to algae. No data available on ecotoxicity.

Huwa-San TR-20 (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

Huwa-San TR-20 (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

Huwa-San TR-20 (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 : Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Treat using the best available techniques before discharge into drains or the aquatic environment.

Additional information : LWCA (the Netherlands): KGA category 01. Hazardous waste according to Directive 2008/98/EC.

EURAL code : 06 13 99 - wastes not otherwise specified

SECTION 14: Transport information

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

14.1. UN number

UN-No	:	2984
UN-No.(IATA)	:	2984
UN-No. (IMDG)	:	2984

14.2. UN proper shipping name

Proper Shipping Name	:	Hydrogen peroxide, aqueous solution
Transport document description	:	UN 2984 Hydrogen peroxide, aqueous solution, 5.1 (8), II, (E)

14.3. Transport hazard class(es)

Class (UN)	:	5.1
Classification code (UN)	:	O1
Class (IATA)	:	5
Class (IMDG)	:	5.1
Subsidiary risk (ONU)	:	/
Subsidiary risk (IATA)	:	/
Hazard labels (UN)	:	5.1

Division (IATA)	:	5.1
Hazard labels (IATA)	:	5.1

14.4. Packing group

Packing group (UN)	:	II

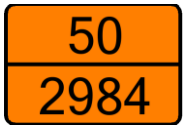
14.5. Environmental hazards

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.)	:	50
Classification code (UN)	:	O1
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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

VOC content : Not applicable

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

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 tot time. Only the most recent versions may be used. Old versions must be destroyed. unless indicated ontherwise 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.

Full text of H- and EUH-phrases::

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Ox. Liq. 1	Oxidising Liquids, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H271	May cause fire or explosion; strong oxidiser
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

SDS EU (REACH Annex II)

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