

Safety Data Sheet

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name • HSS II: Part 2
Product Code • 70020

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

Relevant identified use(s) • Various Industrial Uses

1.3 Details of the supplier of the safety data sheet

Manufacturer • Air Liquide
2700 Post Oak Blvd.
Houston, TX 77056
United States
www.us.airliquide.com
sds@airliquide.com
Telephone (Technical) • 713-896-2896
Telephone (Technical) • 800-819-1704

1.4 Emergency telephone number

Manufacturer • 800-424-9300 - CHEMTREC
Manufacturer • +1 703-527-3887 - Outside United States

Section 2: Hazards Identification**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Acute Toxicity Oral 4 - H302
Skin Corrosion 1A - H314
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335
DSD/DPD • Corrosive (C)
Harmful (Xn)
R5, R20/22, R35

2.2 Label Elements

CLP

DANGER



Hazard statements • H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation

Precautionary statements

- Prevention** • P260 - Do not breathe mists, vapours, and/or spray.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response** • P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment, see supplemental first aid information.
P363 - Wash contaminated clothing before reuse.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P331 - Do NOT induce vomiting.
- Storage/Disposal** • P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



- Risk phrases** • R5 - Heating may cause an explosion.
R20/22 - Harmful by inhalation and if swallowed.
R35 - Causes severe burns.
- Safety phrases** • S36 - Wear suitable protective clothing.
S37 - Wear suitable gloves.
S39 - Wear eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

- CLP** • According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD** • According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012** • Oxidizing Liquids 1
Acute Toxicity Oral 4
Skin Corrosion 1A
Serious Eye Damage 1
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

2.2 Label elements

OSHA HCS 2012

DANGER



- Hazard statements** • May cause fire or explosion; strong oxidizer
 Harmful if swallowed
 Causes severe skin burns and eye damage.
 Causes serious eye damage
 May cause respiratory irritation

Precautionary statements

- Prevention** • Keep away from heat.
 Keep/Store away from clothing and other combustible materials.
 Take any precaution to avoid mixing with combustibles
 Do not breathe mists, vapours, and/or spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wear flame resistant clothing.
- Response** • In case of fire: Use appropriate media for extinction.
 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Immediately call a POISON CENTER or doctor/physician.
 Specific treatment, see supplemental first aid information.
 Wash contaminated clothing before reuse.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
 Rinse mouth.
 Do NOT induce vomiting.
- Storage/Disposal** • Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Oxidizing - C
- Toxic - D1B
- Corrosive - E

2.2 Label elements

WHMIS



- Oxidizing - C
- Toxic - D1B
- Corrosive - E

2.3 Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

NFPA



Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Hydrogen peroxide	CAS:7722-84-1 EC Number:231-765-0 EU Index:008-003-00-9	35%	Ingestion/Oral-Rat LD50 • 376 mg/kg Inhalation-Rat LC50 • 2 g/m ³ 4 Hour(s)	EU DSD/DPD: Annex VI, Table 3.2: R5; O, R8; C, R35; Xn, R20/22 EU CLP: Annex VI, Table 3.1: Ox. Liq. 1, H271; Acute Tox. 4, H332; Acute Tox. 4, H302; Skin Corr. 1A, H314; STOT SE 3: Resp. Irrit., H335 OSHA HCS 2012: Ox. Liq. 1; Acute Tox. 4 (Orl); Acute Tox. 4 (Inhl); Skin Corr. 1A; Eye Dam. 1; STOT SE 3: Resp. Irrit.	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

Skin

- For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Get medical attention immediately.

Eye

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately.

Ingestion

- If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Give plenty of water

to drink. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • LARGE FIRES: Dry chemical, CO₂, alcohol-resistant foam or water spray.
SMALL FIRES: Dry chemical, CO₂ or water spray.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • These substances will accelerate burning when involved in a fire.
Some may decompose explosively when heated or involved in a fire.
Some will react explosively with hydrocarbons (fuels)
May explode from heat or contamination.
May ignite combustibles (wood, paper, oil, clothing, etc.)
Containers may explode when heated.

Hazardous Combustion Products • Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive fumes.

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.
FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures • ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures • Stop leak if you can do it without risk.
Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Dike to collect large liquid spills.
 A vapor suppressing foam may be used to reduce vapors.
 Use water spray to reduce vapors or divert vapor cloud drift.
 Do not get water inside containers.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Handle and open container with care. Use only with adequate ventilation. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist, vapours, spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool, dry, well-ventilated place. Keep away from incompatible materials. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Canada Ontario	Canada Quebec	China	France
Hydrogen peroxide (7722-84-1)	STELs	Not established	Not established	Not established	3.75 mg/m3 STEL	Not established
	TWAs	1 ppm TWA	1 ppm TWA	1 ppm TWAEV; 1.4 mg/m3 TWAEV	1.5 mg/m3 TWA	1 ppm TWA [VME]; 1.5 mg/m3 TWA [VME]
Exposure Limits/Guidelines (Con't.)						
	Result	Germany DFG	Ireland	Israel	NIOSH	OSHA
Hydrogen peroxide (7722-84-1)	STELs	Not established	2 ppm STEL; 3 mg/m3 STEL	Not established	Not established	Not established
	TWAs	Not established	1 ppm TWA; 1.5 mg/m3 TWA	1 ppm TWA	1 ppm TWA; 1.4 mg/m3 TWA	1 ppm TWA; 1.4 mg/m3 TWA
	Ceilings	0.5 ppm Peak; 0.71 mg/m3 Peak	Not established	Not established	Not established	Not established
	MAKs	0.5 ppm TWA MAK; 0.71 mg/m3 TWA MAK	Not established	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Portugal	Spain	Sweden		
Hydrogen peroxide (7722-84-1)	TWAs	1 ppm TWA [VLE-MP]	1 ppm TWA [VLA-ED]; 1.4 mg/m3 TWA [VLA-ED]	1 ppm LLV; 1.4 mg/m3 LLV		
	Ceilings	Not established	Not established	2 ppm CLV; 3 mg/m3 CLV		

Exposure Control Notations

Portugal

•Hydrogen peroxide (7722-84-1): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)

Germany DFG

•Hydrogen peroxide (7722-84-1): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear chemical splash safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

OSHA = Occupational Safety and Health Administration

LLV = Limit Level Value is the exposure limit for 8-hour work day

STEL = Short Term Exposure Limits are based on 15-minute exposures

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

TWAEV = Time-Weighted Average Exposure Value

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear, colorless liquid with an ozone-like odor.
Color	Clear Colorless .	Odor	Ozone-like odor.
Odor Threshold	Data lacking		
General Properties			
Boiling Point	108 C(226.4 F)	Melting Point/Freezing Point	-33 C(-27.4 F)
Decomposition Temperature	Data lacking	pH	< 3
Specific Gravity/Relative Density	= 1.29 @ 20 C(68 F) Water=1 (70% solution)	Water Solubility	Miscible
Viscosity	1.1 Centipoise (cPs, cP) or mPas	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	23 mmHg (torr) @ 30 C(86 F)	Vapor Density	1.17 Air=1 (100% Hydrogen Peroxide)
Evaporation Rate	> 1 n-Butyl Acetate = 1		
Flammability			

Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat.

10.5 Incompatible materials

- Hydrogen Peroxide is incompatible with most organic or readily oxidizable materials, combustible materials, metals, and metal salts.

10.6 Hazardous decomposition products

- Large quantities of oxygen and heat (e.g., 1 L of 50% Hydrogen Peroxide solution will release 197 L of O₂ upon decomposition)

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Hydrogen peroxide (35%)	7722-84-1	Acute Toxicity: Ingestion/Oral-Rat LD₅₀ • 376 mg/kg; <i>Gastrointestinal:Peritonitis</i>; <i>Blood:Pigmented or nucleated red blood cells</i>; <i>Blood:Changes in leucocyte (WBC) count</i>; Ingestion/Oral-Man LDLo • 1429 mg/kg; <i>Behavioral:Coma</i>; <i>Gastrointestinal:Change in structure or function of esophagus</i>; <i>Gastrointestinal:Nausea or vomiting</i>; Ingestion/Oral-Woman LDLo • 2626 µg/kg; <i>Behavioral:Coma</i>; <i>Lungs, Thorax, or Respiration:Cyanosis</i>; <i>Gastrointestinal:Nausea or vomiting</i>; Ingestion/Oral-Man TDLo • 1.429 mL/kg; <i>Brain and Coverings:Changes in circulation (Hemorrhage, thrombosis, etc.)</i>; <i>Peripheral Nerve and Sensation:Flaccid paralysis with appropriate anesthesia</i>; <i>Vascular:Acute arterial occlusion</i>; Inhalation-Rat LC₅₀ • 2 g/m³ 4 Hour(s); <i>Lungs, Thorax, or Respiration:Pulmonary emboli</i>; Irritation: Eye-Rabbit • 1 mg • Severe irritation; Multi-dose Toxicity: Ingestion/Oral-Rabbit TDLo • 8.75 mg/kg 25 Week(s)-Continuous; <i>Endocrine:Effect on menstrual cycle</i>; <i>Reproductive Effects:Paternal Effects:Spermatogenesis</i>; <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i>; Ingestion/Oral-Rat TDLo • 8.75 mg/kg 25 Week(s)-Continuous; <i>Endocrine:Effect on menstrual cycle</i>; <i>Reproductive Effects:Paternal Effects:Spermatogenesis</i>; <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i>; Tumorigen / Carcinogen: Ingestion/Oral-Mouse • 168 g/kg 30 Week(s)-Continuous; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria</i>; <i>Gastrointestinal:Tumors</i>; Ingestion/Oral-Mouse TDLo • 144 g/kg 26 Week(s)-Continuous; <i>Tumorigenic:Equivocal tumorigenic agent by RTECS criteria</i>; <i>Gastrointestinal:Tumors</i>; Skin-Mouse TDLo • 4032 mg/kg 18 Week(s)-Intermittent; <i>Tumorigenic:Carcinogenic by RTECS criteria</i>; <i>Skin and Appendages:Other:Tumors</i>; <i>Tumorigenic:Facilitates action of known carcinogen</i>

GHS Properties	Classification
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Serious Eye Damage 1
Acute toxicity	EU/CLP • Acute Toxicity - Oral 4 - ATEmix (oral) = 1074 mg/kg OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATEmix (oral) = 1074 mg/kg
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1A OSHA HCS 2012 • Skin Corrosion 1A
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause corrosive burns - irreversible damage. May cause respiratory irritation.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)

- Causes severe skin burns and eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)

- Causes serious eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate)

- Harmful if swallowed. May cause irreversible damage to mucous membranes.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LD = Lethal Dose

LC = Lethal Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN2014	Hydrogen peroxide, aqueous solutions	5.1,8	II	NDA
TDG	UN2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION	5.1,8	II	NDA
IMO/IMDG	UN2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION	5.1,8	II	NDA
IATA/ICAO	UN2014	Hydrogen peroxide, aqueous solution	5.1,8	II	NDA

14.6 Special precautions for user

- None specified.

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

- Data lacking.

Section 15 - Regulatory Information

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

mixture**SARA Hazard Classifications** • Acute, Fire

State Right To Know				
Component	CAS	MA	NJ	PA
Hydrogen peroxide	7722-84-1	Yes	Yes	Yes

Inventory						
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS
Hydrogen peroxide	7722-84-1	Yes	No	Yes	Yes	No

Inventory (Con't.)		
Component	CAS	TSCA
Hydrogen peroxide	7722-84-1	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Hydrogen peroxide	7722-84-1	C, D2B, E (20%, 25%, 30%); C, D1B, E, F (including 35%, 40%, 50%, 65%, 70%, 75%, 80%, 85%, 90%, 95%); C, D2B (9%, 10%, 15%)
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Canada - WHMIS - Ingredient Disclosure List

• Hydrogen peroxide	7722-84-1	1 %
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Environment**Canada - CEPA - Priority Substances List**

• Hydrogen peroxide	7722-84-1	Not Listed
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China**Environment****China - Ozone Depleting Substances - First Schedule**

• Hydrogen peroxide	7722-84-1	Not Listed
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China - Ozone Depleting Substances - Second Schedule

• Hydrogen peroxide	7722-84-1	Not Listed
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China - Ozone Depleting Substances - Third Schedule

• Hydrogen peroxide	7722-84-1	Not Listed
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Other**China - Annex I & II - Controlled Chemicals Lists**

• Hydrogen peroxide	7722-84-1	Not Listed
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China - Dangerous Goods List

• Hydrogen peroxide	7722-84-1	(stabilized with >60% Hydrogen peroxide; aqueous solution with not <20% but not >60% Hydrogen peroxide (stabilized if necessary); aqueous solution with not <8% but <20% Hydrogen peroxide
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(stabilized if necessary))

China - Export Control List - Part I Chemicals

• Hydrogen peroxide

7722-84-1

Not Listed

Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Hydrogen peroxide

7722-84-1

Xn; R20/22 C; R35 R5 O; R8

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Hydrogen peroxide

7722-84-1

70%≤C: R:5 50%≤C: Xn;
 R:20 8%≤C: Xn; R:22 70%
 ≤C: C; R:35 50%≤C<70%: C;
 R:34 35%≤C<50%: Xi;
 R:37/38 8%≤C<50%: Xi; R:41
 5%≤C<8%: Xi; R:36 50%≤C:
 O; R:8

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Hydrogen peroxide

7722-84-1

O C R:5-8-20/22-35 S:(1/2)-
17-26-28-36/37/39-45**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations**

• Hydrogen peroxide

7722-84-1

B

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Hydrogen peroxide

7722-84-1

S:(1/2)-17-26-28-36/37/39-45

Germany**Environment****Germany - TA Luft - Types and Classes**

• Hydrogen peroxide

7722-84-1

Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Hydrogen peroxide

7722-84-1

Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Hydrogen peroxide

7722-84-1

ID Number 288, hazard class 1
 - low hazard to waters
 (footnote 8)

Germany - Water Classification (VwVwS) - Annex 3

• Hydrogen peroxide

7722-84-1

Not Listed

Other**Germany - Specifically Regulated Chemicals in TRGS**

• Hydrogen peroxide

7722-84-1

Not Listed

Portugal**Other****Portugal - Prohibited Substances**

• Hydrogen peroxide

7722-84-1

Not Listed

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

• Hydrogen peroxide	7722-84-1	Not Listed
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Other

United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review

• Hydrogen peroxide	7722-84-1	Not Listed
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United Kingdom - List of Dangerous Substances in Water

• Hydrogen peroxide	7722-84-1	Not Listed
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United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Hydrogen peroxide	7722-84-1	7500 lb TQ ($\geq 52\%$ by weight)
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U.S. - OSHA - Specifically Regulated Chemicals

• Hydrogen peroxide	7722-84-1	Not Listed
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Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Hydrogen peroxide	7722-84-1	1000 lb EPCRA RQ (concentration $> 52\%$)
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Hydrogen peroxide	7722-84-1	1000 lb TPQ (concentration $> 52\%$)
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Hydrogen peroxide	7722-84-1	Not Listed
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United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - California - Proposition 65 - Developmental Toxicity

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Hydrogen peroxide	7722-84-1	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Hydrogen peroxide	7722-84-1	Not Listed
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United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Hydrogen peroxide	7722-84-1	(only hazardous if concentration >52%)
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U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Hydrogen peroxide	7722-84-1	Not Listed
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15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information**Relevant Phrases (code & full text)**

- H271 - May cause fire or explosion; strong oxidizer
- H332 - Harmful if inhaled
- R8 - Contact with combustible material may cause fire.

Revision Date

- 31/August/2015

Last Revision Date

- 31/August/2015

Preparation Date

- 30/September/2005

Disclaimer/Statement of Liability

- To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No data available