

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name Interox® Hydrogen Peroxide Chemical Grade 50%
- Chemical name Hydrogen peroxide
- Synonyms Hydrogen peroxide, aqueous solution
- Molecular formula H₂O₂

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance / Mixture**

- Bleaching agents
- Chemical industry
- Electronic industry
- Metal treatment
- Odor agents
- Oxidizing Agents
- Textile industry
- Water treatment
- Manufacture of pulp, paper and paper products

**Distributed by:
SAL Chemical
3036 Birch Drive
Weirton, WV 26062
304-748-8200**

1.3 Details of the supplier of the safety data sheet**Company**

SOLVAY CHEMICALS, INC.
3737 Buffalo Speedway,
Suite 800,
Houston, TX 77098
USA
Tel: +1-800-7658292; +1-713-5256800
Fax: +1-713-5257804

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture**HCS 2012 (29 CFR 1910.1200)**

- | | |
|---|--|
| Oxidizing liquids, Category 2 | H272: May intensify fire; oxidizer. |
| Acute toxicity, Category 4 | H302: Harmful if swallowed. |
| Skin corrosion, Category 1A | H314: Causes severe skin burns and eye damage. |
| Serious eye damage, Category 1 | H318: Causes serious eye damage. |
| Specific target organ systemic toxicity - single exposure, Category 3 | H335: May cause respiratory irritation. (Respiratory system) |

P08000016413

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2.2 Label elements**HCS 2012 (29 CFR 1910.1200)****Pictogram****Signal Word**

- Danger

Hazard Statements

- H272 May intensify fire; oxidizer.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.

Precautionary StatementsPrevention

- P210 Keep away from heat.
- P220 Keep/Store away from clothing/ combustible materials.
- P221 Take any precaution to avoid mixing with combustibles.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P264 Wash skin 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

- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- P305 + P351 + P338 + P310 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/doctor.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.

Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

- H401: Toxic to aquatic life.
- Oxidizing
- Contact with combustible material may cause fire.
- Harmful by inhalation and if swallowed.
- Causes burns.

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

SECTION 3: Composition/information on ingredients**3.1 Substance**

- Not applicable, this product is a mixture.

3.2 Mixture

- Synonyms Hydrogen peroxide, aqueous solution
- Formula H₂O₂

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
Hydrogen peroxide (H ₂ O ₂)	7722-84-1	50

SECTION 4: First aid measures**4.1 Description of first-aid measures****General advice**

- Show this material safety data sheet to the doctor in attendance.

In case of inhalation

- Move to fresh air.
- Oxygen or artificial respiration if needed.
- Victim to lie down in the recovery position, cover and keep him warm.
- Call a physician immediately.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off immediately with plenty of water.
- Keep warm and in a quiet place.
- Call a physician or poison control center immediately.
- Wash contaminated clothing before re-use.

In case of eye contact

- Call a physician or poison control center immediately.
- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- In the case of difficulty of opening the lids, administer an analgesic eye wash (oxybuprocaine).
- Take victim immediately to hospital.

In case of ingestion

- Call a physician or poison control center immediately.
- Take victim immediately to hospital.
- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.
- Artificial respiration and/or oxygen may be necessary.
- If victim is conscious:
- If swallowed, rinse mouth with water (only if the person is conscious).
- Do NOT induce vomiting.
- If victim is conscious:
- If swallowed, rinse mouth with water (only if the person is conscious).

P08000016413

Version : 1.04 / US (Z8)

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- Do NOT induce vomiting.
- If victim is unconscious:
 - Artificial respiration and/or oxygen may be necessary.
- If victim is unconscious:
 - Artificial respiration and/or oxygen may be necessary.

4.2 Most important symptoms and effects, both acute and delayed

In case of inhalation

Symptoms

- Breathing difficulties
- Cough
- pulmonary edema
- Nausea
- Vomiting

Effects

- Corrosive to respiratory system.

Repeated or prolonged exposure

- Nose bleeding
- Risk of chronic bronchitis

In case of skin contact

Symptoms

- Redness
- Swelling of tissue

Effects

- Corrosive
- Causes severe burns.

In case of eye contact

Symptoms

- Redness
- Lachrymation
- Swelling of tissue

Effects

- Corrosive
- Causes severe burns.
- Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

In case of ingestion

Symptoms

- Nausea
- Abdominal pain
- Bloody vomiting
- Diarrhea
- Suffocation
- Cough
- Severe shortness of breath

Effects

- If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

- Risk of respiratory disorder

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- Take victim immediately to hospital.
- Immediate medical attention is required.
- Consult with an ophthalmologist immediately in all cases.
- Burns must be treated by a physician.
- If swallowed
- Avoid gastric lavage (risk of perforation).
- Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

<u>Flash point</u>	Not applicable
<u>Autoignition temperature</u>	The product is not flammable.
<u>Flammability / Explosive limit</u>	No data available

5.1 Extinguishing media

Suitable extinguishing media

- Water
- Water spray

Unsuitable extinguishing media

- None.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting

- Oxidizing
- Oxygen released in thermal decomposition may support combustion
- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Risk of explosion if heated under confinement.
- Risk of explosion by shock, friction, fire or other sources of ignition.

Hazardous combustion products:

- Oxygen
- The release of other hazardous decomposition products is possible.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- Evacuate personnel to safe areas.
- In the event of fire, wear self-contained breathing apparatus.
- When intervention in close proximity wear acid resistant over suit.
- Clean contaminated surface thoroughly.

Further information

- Keep product and empty container away from heat and sources of ignition.

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

- Keep containers and surroundings cool with water spray.
- Approach from upwind.
- Prevent fire extinguishing water from contaminating surface water or the ground water system.

- Keep product and empty container away from heat and sources of ignition.
- Keep containers and surroundings cool with water spray.
- Approach from upwind.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****Advice for non-emergency personnel**

- Evacuate personnel to safe areas.
- Keep people away from and upwind of spill/leak.

Advice for emergency responders

- Use personal protective equipment.
- Drying of this product on clothing or combustible materials may cause fire.
- Keep wetted with water.
- Prevent further leakage or spillage.
- Keep away from incompatible products

6.2 Environmental precautions

- Should not be released into the environment.
- If the product contaminates rivers and lakes or drains inform respective authorities.
- The product should not be allowed to enter drains, water courses or the soil.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

- Dilute with plenty of water.
- Dam up.
- Do not mix waste streams during collection.
- Soak up with inert absorbent material.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

- Dam up.
- Soak up with inert absorbent material.
- Dilute with plenty of water.
- Do not add chemical products.
- Treat recovered material as described in the section "Disposal considerations".
- Never return spills in original containers for re-use.

6.4 Reference to other sections

- Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Use only in well-ventilated areas.

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

- Before all operations, passivate the piping circuits and vessels according to the procedure recommended by the producer.
- Use only clean and dry utensils.
- Never return unused material to storage receptacle.
- Keep away from heat.
- Avoid inhalation, ingestion and contact with skin and eyes.
- Keep away from incompatible products

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Take off contaminated clothing and shoes immediately.
- Wash contaminated clothing before re-use.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.

- Use only in an area equipped with a safety shower.
- Eye wash bottle with pure water

7.2 Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

- Keep only in the original container.
- Store in a well-ventilated place. Keep cool.
- Store in a receptacle equipped with a vent.
- Keep in properly labeled containers.
- Keep container closed.
- Keep in a contained area
- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Regularly check the condition and temperature of the containers.

- Keep away from:
 - Incompatible products

- Keep in a cool, well-ventilated place.
- Keep away from heat.
- Keep away from combustible material.
- Store in a receptacle equipped with a vent.
- Store in original container.
- Keep container closed.
- Keep in a contained area
- Regularly check the condition and temperature of the containers.
- Information about special precautions needed for bulk handling is available on request.

- Refer to protective measures listed in sections 7 and 8.
- Do not confine the product in a circuit, between closed valves, or in a container without a vent.
- In industrial installations, apply the rules for the prevention of major accidents (consult an expert).

Packaging material**Suitable material**

- aluminum 99.5%
- stainless steel 304L / 316L
- Approved grades of HDPE.

7.3 Specific end use(s)

- Contact your supplier for additional information

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

7 / 20



Interlox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters**Components with workplace occupational exposure limits**

Ingredients	Value type	Value	Basis
Hydrogen peroxide (H2O2)	TWA	1 ppm 1.4 mg/m3	National Institute for Occupational Safety and Health
Hydrogen peroxide (H2O2)	TWA	1 ppm	American Conference of Governmental Industrial Hygienists
Hydrogen peroxide (H2O2)	TWA	1 ppm 1.4 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
The value in mg/m3 is approximate.			
Hydrogen peroxide (H2O2)	PEL	1 ppm 1.4 mg/m3	
Expressed as :H2O2			

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS-No.	Concentration
Hydrogen peroxide (H2O2)	7722-84-1	75 ppm

8.2 Exposure controls**Control measures****Engineering measures**

- Provide adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.
- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.
- Refer to protective measures listed in sections 7 and 8.

Individual protection measures

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Respiratory protection

- Use respirator when performing operations involving potential exposure to vapor of the product.
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Respirator with a vapor filter (EN 141)
- Recommended Filter type: ABEK-P2
- Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.
- Wear an approved full-face air supplied respirator for excessive or unknown concentrations. Selected chemical cartridges for respirators, i.e. OV, OV/AG, GME have been tested successfully under lab conditions to remove hydrogen peroxide and peracetic acid vapors in concentrations exceeding the applicable exposure limits. Further information is available in a Solvay Chemicals, Inc. Technical Communication, located at <http://www.solvaychemicals.us/resource.htm> in the Peracetic Acid section.
- Respirator with a vapor filter
- Self-contained breathing apparatus in case of: 1) large uncontrolled emissions, 2) insufficient oxygen, 3) the mask and cartridge do not give adequate protection.

Hand protection

- Impervious gloves
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Suitable material

- PVC
- Natural Rubber
- butyl-rubber
- Nitrile rubber

- Protective gloves - impervious chemical resistant:
- PVC
- Rubber gloves
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection

- Chemical resistant goggles must be worn.
- If splashes are likely to occur, wear:
- Tightly fitting safety goggles
- Face-shield

Skin and body protection

- Impervious clothing
- If splashes are likely to occur, wear:
- Chemical resistant apron
- Boots

- Suitable material
- PVC
- Natural Rubber

- Protective suit

- If splashes are likely to occur, wear:
- Apron
- Boots

- Suitable material
- PVC

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

- Natural Rubber

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Take off contaminated clothing and shoes immediately.
- Wash contaminated clothing before re-use.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Handle in accordance with good industrial hygiene and safety practice.
- Use only in an area equipped with a safety shower.
- Eye wash bottle with pure water

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

<u>Appearance</u>	<u>Physical state:</u> liquid <u>Color:</u> colorless
<u>Odor</u>	odorless
<u>Odor Threshold</u>	No data available
<u>Molecular weight</u>	34 g/mol
<u>pH</u>	2.0 (70 °F (21 °C)) H2O2 50 % <u>pKa:</u> 11.6 (77 °F (25 °C))
<u>Melting point/freezing point</u>	<u>Freezing point:</u> -40.5 °F (-40.3 °C) H2O2 70 %
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range:</u> 257 °F (125 °C) H2O2 70 %
<u>Flash point</u>	Not applicable
<u>Evaporation rate (Butylacetate = 1)</u>	No data available
<u>Flammability (solid, gas)</u>	Not applicable
<u>Flammability (liquids)</u>	The product is not flammable.
<u>Flammability / Explosive limit</u>	<u>Explosiveness:</u> Not explosive With certain materials (see section 10).

Interlox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

<u>Autoignition temperature</u>	The product is not flammable.
<u>Vapor pressure</u>	1.50 mmHg (2 hPa) (86 °F (30 °C)) H2O2 70 %
<u>Vapor density</u>	1.02
<u>Density</u>	<u>Bulk density:</u> Not applicable
<u>Relative density</u>	1.29 H2O2 70 %
<u>Relative density</u>	1.44 (77 °F (25 °C)) Pure substance
<u>Solubility</u>	<u>Water solubility:</u> soluble
<u>Partition coefficient: n-octanol/water</u>	log Pow: -1.57 Method: Calculation method
<u>Decomposition temperature</u>	>= 140 °F (>= 60 °C) Self-Accelerating decomposition temperature (SADT)
<u>Decomposition temperature</u>	< 140 °F (< 60 °C) Slow decomposition
<u>Viscosity</u>	<u>Viscosity, dynamic :</u> 1.26 mPa.s (68 °F (20 °C)) H2O2 70 % 1.249 mPa.s (68 °F (20 °C)) Pure substance
<u>Explosive properties</u>	No data available
<u>Oxidizing properties</u>	The substance or mixture is classified as oxidizing with the category 2.
9.2 Other information	
<u>Henry's Constant</u>	0.00075 Pa.m3 / mol (68 °F (20 °C)) not significant, Air, Volatility
<u>Surface tension</u>	77.2 mN/m (68 °F (20 °C)) H2O2 70 % 80.4 mN/m (68 °F (20 °C)) Pure substance

SECTION 10: Stability and reactivity**10.1 Reactivity**P08000016413
Version : 1.04 / US (Z8)

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- Strong oxidizer. Contact with other material may cause fire.
- Decomposes on heating with potential large quantities of gas release (oxygen).
- Potential for exothermic hazard

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- Contact with combustible material may cause fire.
- Contact with flammables may cause fire or explosions.
- Contact with incompatible material may cause exothermic decomposition with gas release.
- Risk of explosion if heated under confinement.
- Fire or intense heat may cause violent rupture of packages.

10.4 Conditions to avoid

- Contamination
- To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

- Acids
- Bases
- Metals
- Heavy metal salts
- Powdered metal salts
- Reducing agents
- Organic materials
- Flammable materials

10.6 Hazardous decomposition products

- Oxygen
- The release of other hazardous decomposition products is possible.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Acute toxicity estimate : 431 mg/kg - Rat , male and female
Test substance: Hydrogen peroxide
Unpublished reports

Acute inhalation toxicity

LC50 - 4 h (vapor) > 0.17 mg/l - Rat
Test substance: Hydrogen peroxide
No mortality observed at this concentration.
Unpublished reports

Acute dermal toxicity

Acute toxicity estimate 6,440 mg/kg - Rabbit
Test substance: Hydrogen peroxide

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

	Unpublished reports
Acute toxicity (other routes of administration)	No data available
<u>Skin corrosion/irritation</u>	Causes severe burns.
<u>Serious eye damage/eye irritation</u>	Causes serious eye damage.
<u>Respiratory or skin sensitization</u>	
Hydrogen peroxide (H ₂ O ₂)	Does not cause skin sensitization. not sensitizing
<u>Mutagenicity</u>	
Genotoxicity in vitro	
Hydrogen peroxide (H ₂ O ₂)	Ames test with and without metabolic activation positive Published data Chromosome aberration test in vitro with and without metabolic activation positive Unpublished reports
Genotoxicity in vivo	
Hydrogen peroxide (H ₂ O ₂)	In vivo micronucleus test - Mouse Oral Method: OECD Test Guideline 474 negative Unpublished reports
<u>Carcinogenicity</u>	
Hydrogen peroxide (H ₂ O ₂)	No data available

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA

Toxicity for reproduction and development**Toxicity to reproduction / fertility**

Hydrogen peroxide (H₂O₂) No toxicity to reproduction

Developmental Toxicity/Teratogenicity

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

13 / 20



Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Hydrogen peroxide (H₂O₂)

No toxicity to reproduction

STOT**STOT-single exposure**Hydrogen peroxide (H₂O₂)Routes of exposure: Inhalation
Target Organs: Respiratory Tract
May cause respiratory irritation.**STOT-repeated exposure**Hydrogen peroxide (H₂O₂)

The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.

Hydrogen peroxide (H₂O₂)Inhalation (vapor) 90-day - Rat
NOAEC: 7 ppm
Target Organs: Respiratory Tract
Method: OECD Test Guideline 413
Unpublished reports90-day - Rat
NOAEL: 100 ppm
Target Organs: Gastrointestinal tract
Method: OECD Test Guideline 408
drinking water
Unpublished reports**Experience with human exposure**

No data available

Aspiration toxicity

No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**Hydrogen peroxide (H₂O₂)LC50 - 96 h : 16.4 mg/l - Pimephales promelas (fathead minnow)
semi-static test
Analytical monitoring: yesUnpublished internal reports
Harmful to fish.

Acute toxicity to daphnia and other aquatic invertebrates

Hydrogen peroxide (H₂O₂) EC50 - 48 h : 2.4 mg/l - Daphnia pulex (Water flea)
semi-static test
Analytical monitoring: yes
Unpublished internal reports
Toxic to aquatic invertebrates.

Toxicity to aquatic plants

Hydrogen peroxide (H₂O₂) ErC50 - 72 h : 2.62 mg/l - Skeletonema costatum (marine diatom)
static test
Analytical monitoring: yes
Unpublished internal reports
Toxic to algae.

Toxicity to microorganisms

Hydrogen peroxide (H₂O₂) EC50 - 0.5 h : 466 mg/l - activated sludge
static test
Analytical monitoring: yes
Method: OECD Test Guideline 209
Unpublished internal reports

Chronic toxicity to fish No data available

Chronic toxicity to daphnia and other aquatic invertebrates

Hydrogen peroxide (H₂O₂) NOEC: 0.63 mg/l - 21 Days - Daphnia magna (Water flea)
flow-through test
Analytical monitoring: yes
Published data
Harmful to aquatic invertebrates with long lasting effects.

12.2 Persistence and degradability

Abiotic degradation No data available

Physical- and photo-chemical elimination No data available

Biodegradation**Biodegradability**

Hydrogen peroxide (H₂O₂) Ready biodegradability study:
Method: Degradation in sewage treatment plants
The substance fulfills the criteria for ultimate aerobic biodegradability and ready biodegradability
Inoculum: activated sludge
Unpublished internal reports

Degradability assessment

P08000016413
Version : 1.04 / US (Z8)

www.solvay.com

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Hydrogen peroxide (H₂O₂)

The product is considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**Hydrogen peroxide (H₂O₂)

Not potentially bioaccumulable

Bioconcentration factor (BCF)Hydrogen peroxide (H₂O₂)

Not potentially bioaccumulable

12.4 Mobility in soil**Adsorption potential (Koc)**Hydrogen peroxide (H₂O₂)

Adsorption/Soil

Koc: 1.58

Log Koc: 0.2

Method: Structure-activity relationship (SAR)

Unpublished reports

Known distribution to environmental compartmentsHydrogen peroxide (H₂O₂)

Ultimate destination of the product: Water

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects**Ecotoxicity assessment****Acute aquatic toxicity**Hydrogen peroxide (H₂O₂)

Toxic to aquatic life.

Chronic aquatic toxicityHydrogen peroxide (H₂O₂)

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product Disposal**

- Limited quantity
- Dilute with plenty of water.
- Flush into sewer with plenty of water.
- Maximum quantity
- Contact manufacturer.
- Contact waste disposal services.
- In accordance with local and national regulations.

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

16 / 20



Interlox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Waste Code

- Environmental Protection Agency
- Hazardous Waste – YES

- RCRA Hazardous Waste (40 CFR 302)
- D001 - Ignitable waste – (I)
- D002 - Corrosive waste – (C)

Advice on cleaning and disposal of packaging

- Empty containers.
- Clean container with water.
- Dispose of rinse water in accordance with local and national regulations.
- Where possible recycling is preferred to disposal or incineration.
- In accordance with local and national regulations.

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 2014
14.2 Proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS
14.3 Transport hazard class	5.1
Subsidiary hazard class	8
Label(s)	5.1 (8)
14.4 Packing group	
Packing group	II
ERG No	140
14.5 Environmental hazards	NO
Marine pollutant	

TDG

14.1 UN number	UN 2014
14.2 Proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3 Transport hazard class	5.1
Subsidiary hazard class	8
Label(s)	5.1 (8)
14.4 Packing group	
Packing group	II
ERG No	140
14.5 Environmental hazards	NO

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com

Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Marine pollutant**NOM**

14.1 UN number	UN 2014
14.2 Proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3 Transport hazard class	5.1
Subsidiary hazard class	8
Label(s)	5.1 (8)
14.4 Packing group	
Packing group	II
ERG No	140
14.5 Environmental hazards	NO
Marine pollutant	

IMDG

14.1 UN number	UN 2014
14.2 Proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION
14.3 Transport hazard class	5.1
Subsidiary hazard class	8
Label(s)	5.1 (8)
14.4 Packing group	
Packing group	II
14.5 Environmental hazards	NO
Marine pollutant	
14.6 Special precautions for user	
EmS	F-H , S-Q

For personal protection see section 8.

IATA

14.1 UN number	UN 2014
14.2 Proper shipping name	Not permitted for transport
14.3 Transport hazard class	Not permitted for transport
14.4 Packing group	
Packing instruction (cargo aircraft)	Not permitted for transport
Packing instruction (passenger aircraft)	Not permitted for transport
14.5 Environmental hazards	NO
14.6 Special precautions for user	
For personal protection see section 8.	

P08000016413

Version : 1.04 / US (Z8)

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18 / 20



Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Other information : IATA: permitted under 40%

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information**15.1 Notification status**

Inventory Information	Status
United States TSCA Inventory	- Listed on Inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory

15.2 Federal Regulations**US. EPA EPCRA SARA Title III****SARA HAZARD DESIGNATION SECTIONS 311/312 (40 CFR 370)**

Oxidizer (liquid, solid or gas)	Yes
Acute toxicity (any route of exposure)	Yes
Skin corrosion or irritation	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	Yes

The categories not mentioned are not relevant for the product.

Section 313 Toxic Chemicals (40 CFR 372.65)

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Ingredients	CAS-No.	Threshold planning quantity	Remarks
Hydrogen peroxide (H ₂ O ₂)	7722-84-1	1000 lb	Form: >52-100%

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

Ingredients	CAS-No.	Reportable quantity
Hydrogen peroxide (H ₂ O ₂)	7722-84-1	1000 lb

P08000016413

Version : 1.04 / US (Z8)

www.solvay.com



Interox® Hydrogen Peroxide Chemical Grade 50%

Revision Date 04/03/2018

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

Ingredients	CAS-No.	Reportable quantity
Hydrogen peroxide (H ₂ O ₂)	7722-84-1	1000 lb

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Ingredients	CAS-No.	Reportable quantity
Nitric acid	7697-37-2	1000 lb

Calculated RQ exceeds reasonably attainable upper limit.

15.3 State Regulations**US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information**Date Prepared:** 04/03/2018**Key or legend to abbreviations and acronyms used in the safety data sheet**

- PEL Permissible exposure limit
- TWA 8-hour, time-weighted average
- ACGIH American Conference of Governmental Industrial Hygienists
- OSHA Occupational Safety and Health Administration
- NTP National Toxicology Program
- IARC International Agency for Research on Cancer
- NIOSH National Institute for Occupational Safety and Health

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.