

**Safety Data Sheet**  
**H2O2 29% Technical Grade**  
**Retrobrite**

**1. Identification**

**1.1. Product identifier**

**Product Identity** H2O2 29% Technical Grade, Retrobrite

**Alternate Names** Hydrogen Peroxide, 29%

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

**Intended use** Oxygen source for plant roots

**Application Method** See Technical Data Sheet.

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

**Company Name** Future Harvest

725 Evans Crt

Kelowna BC Canada

V1X 6G4

**Emergency**

**Customer Service: 250-491-0255**

**2. Hazard(s) identification**

**2.1. Classification of the substance or mixture**

Oxidizing Liq., 2, H272 May intensify fire, oxidizer

Serious eye dam; 1, H318 Causes serious eye damage

Oral: Acute toxicity, 4:H302 Harmful if swallowed

Resp Irri., 3, H335 May cause respiratory irritation

Aqua Tox., 3, H412 Harmful to aquatic life with long lasting effects

**2.2. Label elements**

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Danger**

H272: May intensify fire; oxidizer.

H302: Harmful if swallowed.

H318: Causes serious eye damage.  
H335: May cause respiratory irritation.  
H412: Harmful to aquatic life with long lasting effects.

**[Prevention]:**

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 gas/mist/vapours/spray  
P264 Wash thoroughly after handling.  
P270: Do not eat drink or smoke when using this product  
P217: Use only outdoors or in well-ventilated area.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/eye protection/face protection.

**[Response]:**

P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+351+338 IF IN EYES: Rinse continuously 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.  
P321 Specific treatment (see information on this label).  
P301+P312+P330 – IF SWALLOWED: Rinse mouth. Do not induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.  
P362 Take off contaminated clothing and wash before reuse.  
P370+P378: In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam.

**[Storage]:**

P 403+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.

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant Provincial and Federal Hazardous Substances regulations.

Ingredient/Chemical	Designations	Weight %	GHS Classification	Notes
Hydrogen Peroxide	CAS Number: 7722-84-1	29%	H272, H302, H318, H335, H412	[1]
Water	CAS Number: 7732-18-5	61%	No Data available; no phrases apply	[1]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

**General** In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

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

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

**Skin** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Ingestion** If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Rinse mouth.

**Note to physician:**

Exposure to material may cause delayed lung injury resulting in pulmonary edema and pneumonitis. Exposed individuals should be monitored for 72 hours after exposure for the onset of delayed respiratory symptoms.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Water spray or fog,

### 5.2. Special hazards arising from the substance or mixture

### 5.3. Advice for fire-fighters

Oxidizing material. In case of a major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Decomposition will release oxygen, which will intensify fire. Cool closed containers exposed to fire with water spray. Closed containers of the material may explode when subjected to heat from surrounding fire. Do not allow run-off from fire fighting to enter drains or water courses. Fire fighting equipment should be thoroughly decontaminated after use.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.

Promptly remove soiled clothing and wash thoroughly before reuse.

### 6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Avoid contact with cellulose, paper, sawdust or similar substances. Risk of self-ignition or promotion of fires.

Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Do not taste or swallow.

Do not get in eyes, on skin or on clothing.

Avoid breathing vapor or mist.

Keep from contact with clothing and other combustible materials.

Keep away from heat sparks and flames.

Use only with adequate ventilation.

Wash thoroughly after handling.

Wear fire/flame resistant/retardant clothing.

Prevent product contamination.

Keep only in the original container. Store in tightly closed container

**DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.**

Emptied container retains vapor and product residue.

Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Avoid contamination.

See section 2 for further details. - [Prevention]:

### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage. Store in tightly closed container. Store in cool, dry, well ventilated area away from sources of ignition such as flame, sparks and static electricity.

Store out of direct sunlight in a cool, well ventilated place. Store in original container.

Incompatible materials: acids, alkalis, reducing agents, and combustibles.

### 7.3. Specific end use(s)

No data available.

## 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

##### CAS No. Ingredient Source Value

7722-84-1 Hydrogen Peroxide OSHA 1.4 mg/m3 TWA

ACGIH 1.4 mg/m3 TWA

NIOSH Not available

### 8.2. Exposure controls

**Respiratory** Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components.

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

**Skin** Chemical resistant, impervious gloves should be worn at all time of the following types; neoprene, polyvinylchloride, impervious butyl rubber gloves. Wear a face shield, chemical goggles and chemical resistant clothing. Wear suitable protective clothing Protective shoes or boots.

**Engineering Controls** Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

**Other Work Practices** Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. See section 2 for further details. - [Prevention]:

## 9. Physical and chemical properties

**Appearance** Colorless liquid

**Odor** Pungent

**Odor threshold** Not Measured

**pH** Not available

**Melting point / freezing point** -27F

**Initial boiling point and boiling range** 226F

**Flash Point** None

**Evaporation rate (Ether = 1)** Not Measured

**Flammability (solid, gas)** Not Applicable

**Upper/lower flammability or explosive limits** **Lower Explosive Limit:** Not Measured

**Upper Explosive Limit:** Not Measured

**Vapor pressure (Pa)** 24 mmHg

**Vapor Density** 1.0

**Specific Gravity** 1.130

**Solubility in Water** Miscible

**Partition coefficient n-octanol/water (Log Kow)** Not Measured

**Auto-ignition temperature** Not Measured

**Decomposition temperature** Not Measured

**Viscosity (cSt)** <50 cps

### 9.2. Other information

No other relevant information.

## 10. Stability and reactivity

### 10.1. Reactivity

Hazardous Polymerization will not occur.

### 10.2. Chemical stability

Stable under normal circumstances.

### 10.3. Possibility of hazardous reactions

This product may react with strong acids, strong oxidizing agents and reducing agents.

### 10.4. Conditions to avoid

Material decomposes with potential to product a rupture of unvented closed, containers.

### 10.5. Incompatible materials

Metals, organic materials, reducing agents, metallic oxides, dusts, combustible materials (e.g. wood, sawdust), alkaline materials

### 10.6. Hazardous decomposition products

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

## 11. Toxicological information

**Acute toxicity**

Ingredient	Oral LD50 mg/kg	Skin LD50 mg/kg	Inhalation Vapor LC50 mg/L/4hr	Inhalation Dust/Mist LC50 mg/L/4hr	Inhalation Gas LC50, ppm
Hydrogen Peroxide CAS Number: 7722-84-1	1200 mg/kg (rat)	>2,000mg/kg (Rabbit)	0.17mg/l (Rate, 4h LCO) No death occurred	No data Available	No data Available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

**12. Ecological information**

**12.1. Toxicity**

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

**Aquatic Ecotoxicity**

Ingredient	96 hr LC50 fish mg/l	48 hr EC50 crustacea mg/l	ErC50 algae, mg/l
Hydrogen Peroxide CAS Number: 7722-84-1	16.4mg/L (fathead minnow)	Not available	1.38mg/l (S. costatum 72 hr)

**12.2. Persistence and degradability**

There is no data available on the preparation itself.

**12.3. Bioaccumulative potential**

Not Measured

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This product contains no PBT/vPvB chemicals.

**12.6. Other adverse effects**

No data available.

**13. Disposal considerations**

**13.1. Waste treatment methods**

Observe all federal, state and local regulations when disposing of this substance.

**14. Transport information**

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)
14.1. UN number	UN2014	UN2014
14.2. UN proper shipping name	UN2014 Hydrogen peroxide	UN2014 Hydrogen peroxide

<b>14.3. Transport hazard class(es)</b>	aqueous solutions, 5.1, (8), II DOT Hazard Class: 8	aqueous solutions, 5.1, (8), II IMDG: 8 Sub Class: Not Applicable
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<b>14.4. Packing group</b>	II	II
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**14.5. Environmental hazards**  
IMDG Marine Pollutant: No

**14.6. Special precautions for user**  
No further information

## 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

### Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

### EPCRA 311/312 Chemicals and RQs:

Acute Health Hazard, Fire Hazard, Reactivity Hazard

### EPCRA 302 Extremely Hazardous:

Hydrogen Peroxide (7722-84-1). SARA Reportable Quantity – 1000 lbs. SARA Threshold Planning Quantity – 1000 lbs.

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

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