

### SECTION 1: Product and company identification

Product name : Hydro Power™ - Hydrogen Peroxide with d-Limonene  
 Use of the substance/mixture : Cleaner  
 Product code : 0713  
 Company : Total Solutions  
 P.O. Box 240014  
 Milwaukee, WI 53224 - USA  
 T (414) 354-6417  
 Emergency number : Chemtec: (800) 424-9300

### SECTION 2: Hazards identification

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

##### Classification (GHS-US)

Eye Dam. 1 H318  
 Skin Sens. 1 H317  
 Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger  
 Hazard statements (GHS-US) : May cause an allergic skin reaction  
 Causes serious eye damage  
 Precautionary statements (GHS-US) : Avoid breathing mist, spray  
 Contaminated work clothing must not be allowed out of the workplace  
 Wear eye protection, protective clothing, protective gloves  
 If on skin: Wash with plenty of water.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a doctor, a POISON CENTER  
 If skin irritation or rash occurs: Get medical advice/attention  
 Take off contaminated clothing and wash it before reuse  
 Dispose of contents/container to comply with local/regional/national/international regulations.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable  
 Full text of H-phrases: see section 16

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
hydrogen peroxide	(CAS No) 7722-84-1	1-5	Ox. Liq. 1, H271 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Ethoxylated Alcohol Mixture	(CAS No) Proprietary	1-5	Eye Dam. 1, H318
Quaternary Amine Compound	(CAS No) Proprietary	0.5-1.5	Eye Dam. 1, H318
(+)-limonene	(CAS No) 5989-27-5	0.1-1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove the victim into fresh air. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : Take off contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth with water. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Gastrointestinal complaints. Nausea. Cramps. May be harmful if swallowed.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : All extinguishing media allowed.

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

- Fire hazard : This product contains an oxidizer. Mixtures with combustible or flammable materials may ignite easily, burn fiercely, or may explode in contaminated, closed containers.
- Reactivity : Upon combustion: CO and CO<sub>2</sub> are formed. Thermal decomposition generates : Heat. steam. oxygen gas.

### 5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

- General measures : Isolate from fire, if possible, without unnecessary risk.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Protective goggles. Gloves. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

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

- For containment : Contain released substance, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

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

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep container closed when not in use.

# Hydro Power™ - Hydrogen Peroxide with d-Limonene

## Safety Data Sheet

Incompatible products	: alkaline substances. Metals. Salts. organic materials. reducing agents.
Incompatible materials	: Heat sources.
Storage area	: Meet the legal requirements. Store in a cool area. Store in a well-ventilated place.
Special rules on packaging	: meet the legal requirements. Keep only in original container.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

hydrogen peroxide (7722-84-1)		
ACGIH	ACGIH TWA (ppm)	1 ppm
ACGIH	ACGIH STEL (ppm)	1 ppm

#### 8.2. Exposure controls

Personal protective equipment : Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Safety glasses. Protective clothing. Protective goggles.



### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear, colorless liquid.
Odor	: Citrus scent
Odor threshold	: No data available
pH	: 9 - 10
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 200 °F Closed Cup
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 1.02 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
VOC content	: < 0.5 %

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed. Thermal decomposition generates : Heat. steam. oxygen gas.

#### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

### 10.4. Conditions to avoid

Overheating.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Ethoxylated Alcohol Mixture (Proprietary)</b>	
LD50 oral rat	> 2000 mg/kg
<b>Quaternary Amine Compound (Proprietary)</b>	
LD50 oral rat	> 2000 mg/kg
<b>(+)-limonene (5989-27-5)</b>	
LD50 oral rat	4400 mg/kg body weight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Literature study; > 2000 mg/kg bodyweight; Rat; Read-across)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Weight of evidence; Equivalent or similar to OECD 402)
ATE CLP (oral)	4400.000 mg/kg body weight
<b>hydrogen peroxide, 35%=&lt;conc&lt;50%, aqueous solutions, stabilized (7722-84-1)</b>	
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation : Not classified  
pH: 9 - 10

Serious eye damage/irritation : Causes serious eye damage.  
pH: 9 - 10

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

<b>(+)-limonene (5989-27-5)</b>	
IARC group	3 - Not Classifiable
<b>hydrogen peroxide, 35%=&lt;conc&lt;50%, aqueous solutions, stabilized (7722-84-1)</b>	
IARC group	3 - Not Classifiable

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Gastrointestinal complaints. Nausea. Cramps. May be harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>(+)-limonene (5989-27-5)</b>	
LC50 fish 1	720 µg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	0.36 mg/l (48 h; Daphnia magna; GLP)

# Hydro Power™ - Hydrogen Peroxide with d-Limonene

## Safety Data Sheet

**TOTAL**  
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(+)-limonene (5989-27-5)	
LC50 fish 2	702 µg/l (96 h; Pimephales promelas)
Threshold limit algae 1	150 mg/l (72 h; Desmodesmus subspicatus; GLP)
Threshold limit algae 2	2.62 mg/l (72 h; Desmodesmus subspicatus)

hydrogen peroxide, 35%=<conc<50%, aqueous solutions, stabilized (7722-84-1)	
LC50 fish 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

(+)-limonene (5989-27-5)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil.
ThOD	3.29 g O /g substance

hydrogen peroxide, 35%=<conc<50%, aqueous solutions, stabilized (7722-84-1)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components 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

(+)-limonene (5989-27-5)	
BCF fish 1	864.8 - 1022 (Pisces; Fresh weight)
Log Pow	4.38 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 Log Kow 5).
hydrogen peroxide, 35%=<conc<50%, aqueous solutions, stabilized (7722-84-1)	
Log Pow	-1.36
Bioaccumulative potential	Bioaccumulation: not applicable.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT : Not regulated for transport

### Additional information

Other information : No supplementary information available.

### ADR

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

# Hydro Power™ - Hydrogen Peroxide with d-Limonene

## Safety Data Sheet



hydrogen peroxide (7722-84-1)	
Not listed on SARA Section 313 (Specific toxic chemical listings)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

California Proposition 65 - This product does not contain substances known to the state of California to cause cancer and/or reproductive toxicity.

### SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

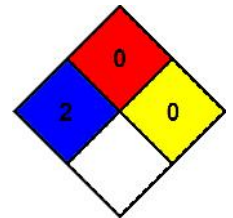
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 3	Flammable liquids Category 3
Ox. Liq. 1	Oxidizing liquids Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapor
H271	May cause fire or explosion; strong oxidizer
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



Prepared by: Technical Department

*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. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.*