SECTION 1: Identification

1.1. Identification

Product name : HYDROGENIC
Product code : U130615

1.2. Recommended use and restrictions on use

Recommended use : Multi-purpose peroxide cleaner
Restrictions on use : Food Plant, Industrial and Institutional use only

1.3. Supplier

Project Clean Inc.
2330 Industrial Parkway SW
Dyersville, IA 52040
T 1 800 663 9925
www.projectclean.com

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	Comment
USA	CHEMTREC Chemical Emergency	www.chemtrec.com	1 800 424 9300	24hr/day 7days/week within USA and Canada
USA	CANUTEC Transportation Emergencies	www.canutec.com	1 888 226 8832 *666 on a cell phone	24hr/day 7days/week within USA and Canada

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Skin sensitization, Category 1	H317	May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements (GHS US) : P261 - Avoid breathing fume, mist, vapours, or spray.
P264 - Wash hand and affected areas thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves and eye protection.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplemental first aid instruction on the product SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents and or container to hazardous or special waste collection point, in accordance with local, regional, national and or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Alcohol Ethoxylate	CAS-No.: 68991-48-0	1 – 5
Hydrogen peroxide	CAS-No.: 7722-84-1	1 – 5
D-Limonene	CAS-No.: 5989-27-5	≤ 0.1

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice or 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. If eye irritation persists: Get medical advice or attention.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Expected Symptoms/Effects, Acute and Delayed : Causes serious eye irritation. May produce an allergic reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Chronic symptoms : No effects known.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Do not handle until all safety precautions have been read and understood. Clean up any spills as soon as possible, using an absorbent material to collect it.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or face shield with safety glasses. Gloves (EN 374).

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing fume, mist, vapours, or spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls or personal protection".

Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Keep away from combustible material. Cover spill with non combustible material, e.g.: sand or earth. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing fume, gas, mist, vapours, or spray. Wear personal protective equipment.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Incompatible products : Oxidizing agent.

Incompatible materials : Alkali metals and their alloys. Combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HYDROGENIC
No additional information available

Alcohol Ethoxylate (68991-48-0)
No additional information available

D-Limonene (5989-27-5)
No additional information available

Hydrogen peroxide (7722-84-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Hydrogen peroxide
ACGIH OEL TWA	1 ppm
Remark (ACGIH)	TLV® Basis: Eye, URT, & skin irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Hydrogen peroxide
OSHA PEL TWA	1.4 mg/m³
	1 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Not required for normal conditions of use

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear, Colorless liquid.
Color	:	Colorless
Odor	:	Citrus scent
Odor threshold	:	No data available
pH	:	5.5 – 6.5
Melting point	:	No data available
Freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	> 100 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Upper and lower flammability or explosive limit	:	No data available, Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	1.01 – 1.03
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	Not self-igniting
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	Thin like water
Explosion limits	:	No data available
Explosive properties	:	Product is not explosive.
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent. Combustible materials. Alkali metals and their alloys.

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 (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

HYDROGENIC	
LD50 oral rat	> 19242.7 mg/kg
LD50 dermal rat	> 83217.8 mg/kg
LC50 Inhalation - Rat	> 55.5 mg/l/4h

Alcohol Ethoxylate (68991-48-0)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

D-Limonene (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))

D-Limonene (5989-27-5)	
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Read-across, Dermal, 7 day(s))

Hydrogen peroxide (7722-84-1)	
LD50 oral rat	693.7 mg/kg Source: ECHA
LD50 dermal rabbit	3000 mg/kg Source: ChemIDPlus
LC50 Inhalation - Rat	2000 mg/m³ Source: ChemIDPlus
ATE US (oral)	693.7 mg/kg body weight
ATE US (dermal)	3000 mg/kg body weight
ATE US (vapors)	2 mg/l/4h
ATE US (dust, mist)	2 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

D-Limonene (5989-27-5)	
IARC group	3 - Not classifiable

Hydrogen peroxide (7722-84-1)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Hydrogen peroxide (7722-84-1)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Likely routes of exposure : Skin and eye contact. Inhalation.

Expected Symptoms/Effects, Acute and Delayed : Causes serious eye irritation. May produce an allergic reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Chronic symptoms : No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Alcohol Ethoxylate (68991-48-0)	
LC50 - Fish [1]	70.1 mg/l 48 hours
EC50 - Crustacea [1]	5.3 mg/l Daphnia, 48 hours

D-Limonene (5989-27-5)	
LC50 - Fish [1]	720 µg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.307 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	702 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [2]	0.51 mg/l Test organisms (species): Daphnia magna
ErC50 algae	0.32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Hydrogen peroxide (7722-84-1)	
LC50 - Fish [1]	16.4 mg/l Source: ECHA

12.2. Persistence and degradability

HYDROGENIC

Persistence and degradability Contains readily biodegradable component(s).

Alcohol Ethoxylate (68991-48-0)	
Persistence and degradability	Readily biodegradable in water.

D-Limonene (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O_2/g substance

Hydrogen peroxide (7722-84-1)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

HYDROGENIC

Partition coefficient n-octanol/water (Log Pow)	No data available
Bioaccumulative potential	No bioaccumulation data available.

D-Limonene (5989-27-5)	
BCF - Fish [1]	864.8 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, Equivalent or similar to OECD 117, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 ≤ Log Kow ≤ 5).

Hydrogen peroxide (7722-84-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.36 Source: IPCS
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

HYDROGENIC

Ecology - soil	No (test) data on mobility of the substance available.

Alcohol Ethoxylate (68991-48-0)	
Mobility in soil	589.5 Source: EPI SUITE

D-Limonene (5989-27-5)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.049 – 3.801 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Low potential for mobility in soil.

Hydrogen peroxide (7722-84-1)	
Surface tension	80.4 mN/m (20 °C, Pure substance, Calculated value, 100 %)
Ecology - soil	No (test)data on mobility of the component(s) available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents and or container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available or puncture and dispose of in a sanitary landfill.

Ecological waste information : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable

Proper Shipping Name (TDG) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT
No data available
TDG
No data available
IMDG
No data available

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to 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.

Hydrogen peroxide (7722-84-1)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

15.2. International regulations

CANADA

Alcohol Ethoxylate (68991-48-0)
Listed on the Canadian DSL (Domestic Substances List)

D-Limonene (5989-27-5)
Listed on the Canadian DSL (Domestic Substances List)

Hydrogen peroxide (7722-84-1)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

HYDROGENIC
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory

D-Limonene (5989-27-5)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Hydrogen peroxide (7722-84-1)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

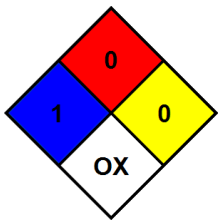
Full text of hazard classes and H-statements	
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

NFPA specific hazard : OX - Materials that posses oxidizing properties.



It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. Project Clean Inc. will accept no liability for damages or loss incurred from the improper handling and use of this product.

The information provided in the Safety Data Sheet has been obtained from current sources and is believed to be reliable.