



HP-DEFEND

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SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product identifier used on the label

: **HP-DEFEND**

Other means of identification : Not available.

Recommended use of the chemical and restrictions on use

: Hard surface cleaner; Disinfectant.
Use pattern: Professional Use Only
Restriction on use: None known

Chemical family

: Mixture

**Name, address, and telephone number
of the supplier:**

Tetra-Chem Industries Ltd.

271 Ingersoll Street S.
Ingersoll, ON, Canada
N5C 3J7

Supplier's Telephone # : (519) 485-4370

24 Hr. Emergency Tel # : (519) 536-1617

**Name, address, and telephone number of
the manufacturer:**

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Colorless to light straw liquid. Odorless.

Most important hazards: Causes severe skin burns and eye damage. May cause respiratory irritation. Occupational exposure to the substance or mixture may cause adverse effects. Refer also to TOXICOLOGICAL INFORMATION (Section 11). Avoid release to the environment.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification

Skin Corrosion/Irritation - Category 1

Serious eye damage/eye irritation - Category 1

Reproductive toxicity - Category 2

Specific target organ toxicity, single exposure - Category 3 (respiratory)

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Causes severe skin burns and eye damage.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.



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Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist or vapor.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical attention/advice.
Immediately call a poison center/doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Store locked up.
Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Physical Hazards Not Otherwise Classified (PHNOC) : Not applicable.
Health Hazards Not Otherwise Classified (HHNOC) : Not applicable.

Other hazards

Other hazards which do not result in classification: Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<u>Chemical name</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Hydrogen peroxide	7722-84-1	5.0% - 10%

The exact percentage (concentration) of the composition has been withheld as proprietary.

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Seek immediate medical attention/advice. Do not induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Never give anything by mouth to an unconscious person.



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- Inhalation* : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Seek immediate medical attention/advice.
- Skin contact* : Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 30 minutes. Do not rub area of contact. Seek immediate medical attention/advice. Wash contaminated clothing before reuse. Leather and shoes that have been contaminated with the solution may need to be destroyed.
- Eye contact* : Immediately flush eyes thoroughly with running water for at least 20 to 30 minutes. Seek immediate medical attention/advice.

Most important symptoms and effects, both acute and delayed

- : May cause severe eye irritation. Permanent eye damage including blindness could result. Symptoms may include redness, pain, tearing and conjunctivitis. Causes skin burns. Symptoms may include redness, blistering, pain and swelling. May cause respiratory irritation. Symptoms include coughing, shortness of breath and wheezing. Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract. Suspected of damaging fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed

- : Immediate medical attention is required. Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Fires should be flooded with large amounts of water. Avoiding using other types of extinguishing materials, such as foam or dry chemicals.

Unsuitable extinguishing media

- : Avoid using Carbon dioxide or other similar extinguishing agents as they are not effective in fires involving oxidizers.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Substance releases oxygen when heated, which may increase the severity of an existing fire.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Carbon oxides, Sodium oxides

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.



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Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

- : Ventilate area of release. Remove all sources of ignition. Stop leak if you can do so without risk. Dike for water control. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contact the proper local authorities.

Special spill response procedures

- : In Canada: For 24-hour emergency assistance, call: 1-613-996-6666 (CANUTEC). US CERCLA Reportable quantity (RQ): See section 15.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use in a well-ventilated area. Wear protective equipment during handling. Do not breathe the mist or vapor. Wash thoroughly after handling. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not eat, drink or smoke when using this product. Keep away from clothing and other combustible materials. Keep only in original packaging. Label containers appropriately. Keep containers closed when not in use.

Conditions for safe storage : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area. Store in corrosion-resistant containers. Protect from sunlight.

Incompatible materials : Combustible materials. Metals. Bases

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>			
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u> <u>STEL</u>
Hydrogen peroxide	1 ppm	N/Av	1 ppm ; 1.4 mg/m ³ N/Av

Ventilation and engineering measures

- : Provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapours below their respective threshold limit value.

Respiratory protection

- : Respiratory protection is required if the concentrations exceed the TLV. Wear a positive-pressure supplied-air respirator. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.



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- Skin protection** : Impervious gloves must be worn when using this product. Wear impervious gloves, such as butyl rubber. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye / face protection** : Chemical splash goggles are recommended. A full face shield may also be necessary.
- Other protective equipment** : Full protective flameproof clothing. Wear chemically protective gloves (impervious), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Do not breathe mist or vapor. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical State** : Liquid
- Colour** : Clear to light straw
- Odour** : Odorless
- Odour threshold** : N/Ap
- pH** : 1.05
- Melting Point/Freezing point** : N/Ap
- Initial boiling point and boiling range** : 100°C (212°F)
- Flash point** : N/Ap
- Flashpoint (Method)** : N/Ap
- Evaporation rate (BuAe = 1)** : 0.3
- Flammability** : Not applicable.
- Lower explosion or flammability limit (% by vol.)** : N/Ap
- Upper explosion or flammability limit (% by vol.)** : N/Ap
- Oxidizing properties** : Contains a mild oxidizer
- Explosive properties** : N/Av
- Vapour pressure** : N/Av
- Relative vapour density** : N/Av
- Relative density / Specific gravity** : 1.04-1.08
- Solubility in water** : Soluble
- Other solubility(ies)** : N/Av
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : N/Av
- Auto-ignition temperature** : N/Av
- Decomposition temperature** : N/Av
- Viscosity** : 10cp
- Particle characteristics** : N/Ap
- Volatiles (% by weight)** : N/Av
- Volatile Organic Compounds(VOC's)** : N/Av
- Absolute pressure of container** : N/Ap
- Flame projection length** : N/Ap



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Other physical/chemical comments

: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions

: No dangerous reaction known under conditions of normal use.

Conditions to avoid : Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials. Do not keep container sealed. Keep out of direct sunlight. Keep away from combustible material.

Incompatible materials : Combustible materials. Metals. Bases.

Hazardous decomposition products

: Not available.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption

: YES

Potential health effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

: If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory tract. Symptoms may include coughing, choking and wheezing. Inhalation of extremely high concentrations could cause pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Sign and symptoms ingestion

: May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, nausea, vomiting, diarrhea and collapse.

Sign and symptoms skin

: Causes burns. Symptoms may include redness, blistering, pain and swelling.

Sign and symptoms eyes

: Causes serious eye damage. Permanent eye damage including blindness could result. Symptoms may include severe pain, tearing, redness, swelling and blurred vision.

Potential chronic health effects

: None known or reported by the manufacturer.

Mutagenicity

: Not expected to be mutagenic in humans.

Carcinogenicity

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & teratogenicity

: Reproductive toxicity - Category 2 Suspected of damaging fertility or the unborn child. Salicylic acid may cause reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.



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Specific target organ effects : Eyes, skin, respiratory system and digestive system.

Specific target organ toxicity, single exposure - Category 3 (respiratory)
May cause respiratory irritation.

Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure

: Not available.

Synergistic materials

: Not available.

Toxicological data

: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data. ATE oral = 3457.05 mg/kg

<u>Chemical name</u>	<u>LC₅₀(4hr)</u> <u>(inh, rat)</u>	<u>LD₅₀</u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Hydrogen peroxide	0.17 mg/L 4hr (no deaths)	1193 mg/kg	>2000 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: Toxicity is primarily associated with pH. See the following tables for the substance's ecotoxicity data. Do not allow material to contaminate ground water system.



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Ecotoxicity data:

<u>Ingredients</u>	CAS #	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 days	M Factor
Hydrogen peroxide	7722-84-1	16.4mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	CAS #	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 days	M Factor
Hydrogen peroxide	7722-84-1	2.4mg/L Water flea	N/Av	None.

<u>Ingredients</u>	CAS #	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Hydrogen peroxide	7722-84-1	N/Av	0.63 mg/L (Green algae)	None.



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Persistence and degradability

: No information available.

Bioaccumulation potential

: No data is available on the product itself.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Hydrogen peroxide CAS # 7722-84-1	1.50	no bioaccumulation

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: No data is available on the product itself.

SECTION 13. DISPOSAL CONSIDERATIONS

- Handling for disposal** : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.
- Methods of disposal** : Dispose in accordance with all applicable federal, state, provincial and local regulations.
- RCRA** : It is the responsibility of the waste generator to determine the proper waste identification and disposal method.
For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	None.	Not regulated.	not regulated	none	
TDG Additional information	None.				

Special precautions for user : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.



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SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following US Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de Minimis Concentration
Hydrogen peroxide	7722-84-1	Yes	N/Ap	1000 lb TPQ (concentration >52%)	No	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Skin corrosion; Eye damage; Reproductive toxicity; Specific target organ toxicity, single exposure

US State right to know laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Hydrogen peroxide	7722-84-1	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

Canadian information:

All ingredients are present on the DSL.



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International information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Hydrogen peroxide	7722-84-1	231-765-0	Present	Present	(1)-419	KE-20204	Present	HSR001326, HSR001449, HSR001450 (dilution)

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CSA: Canadian Standards Association
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
LC: Lethal Concentration
LD: Lethal Dose
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices
2. ECHA - European Chemical Agency
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases
4. Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists
6. California Proposition 65 List
7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

Preparation Date (mm/dd/yyyy)

: 06/24/2024



TETRA-CHEM
INDUSTRIES LTD.

Tetra-Chem Industries Ltd.
271 Ingersoll Street S.
Ingersoll, ON, Canada, N5C 3J7
Telephone: (519) 485 4370

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Reviewed Date SDS (mm/dd/yyyy)

Revision No. : 10/21/2025
Revision No. : 2
Revision Information : 2. HAZARDS IDENTIFICATION 3. COMPOSITION/INFORMATION ON INGREDIENTS
11. TOXICOLOGICAL INFORMATION

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

Prepared for:

Tetra-Chem Industries Ltd.
271 Ingersoll Street S.
Ingersoll, ON
Canada N5C 3J7
Telephone: (519) 485 4370



TETRA-CHEM
INDUSTRIES LTD.

Prepared by:

ICC The Compliance Center Inc.
Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada)
<http://www.thecompliancescenter.com>



ComplianceCenter

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