

SECTION 1: IDENTIFICATION

1.1 Product identifier

Product Name HCRTM HRP Quencher

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

Identified uses For research use only. Not for diagnostic use.

1.3 Details of the supplier of the data sheet

Company Molecular Instruments, Inc.
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Los Angeles, CA 90041
Telephone +1 626 210 2600

SECTION 2. HAZARDS IDENTIFICATION

This safety data sheet complies with the requirements of Regulation EC 1907/2006.

2.1 Classification of the substance or mixture

GHS Classification

Health Hazards	
Oxidizing liquids	Category 2
Acute toxicity, Oral	Category 4, Category 2, H300
Acute toxicity, Dermal	Category 1, H310
Acute toxicity, Inhalation – Dusts and Mists	Category 2, H330
Serious eye damage/eye irritation	Category 1, H318
Specific target organ toxicity (repeated exposure)	Category 2, H373
Short-term (acute) aquatic hazard	Category 1, H400
Long-term (chronic) aquatic hazard	Category 1, H410

2.2 Label elements including precautionary statements



Signal Word

Danger

Hazard Statements

H300+H310+H330

Fatal if swallowed, in contact with skin or if inhaled

H373

May cause damage to organs through prolonged or repeated exposure

H400+H410

Very toxic to aquatic life with long lasting effects

Precautionary Statements

P280

Wear protective gloves/protective clothing/eye protection/face protection

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

2.3 Other hazards

None.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Characterization

Mixtures.

3.2 Dangerous Components

Chemical Name	CAS-No	EINECS-No	Index-No	Weight %
Water	7732-18-5	-	-	65-80%
Hydrogen peroxide	7722-84-1	-	-	20-35%
Sodium azide	26628-22-8	247-852-1	-	> 95%
4-Morpholineethanesulfonic acid	4432-31-9	224-632-3	-	195.24 g/mol

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General information

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation

Move to fresh air. Consult a physician if necessary. If not breathing, give artificial respiration.

Ingestion

Rinse mouth and drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a physician or poison control center immediately.

Skin Contact

Rinse immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing. Get medical attention if symptoms occur.

Eye Contact

Rinse immediately with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Remove contact lenses if present. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or in Section 11.

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

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable extinguishing media

Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards

Carbon oxides

Nitrogen oxides (NO_x)

Sulfur oxides

Combustible.

Development of hazardous combustion gases or vapors possible in the event of fire. In the event of fire, cool tanks with water spray. Containers may explode when heated or if contaminated with water. Thermal decomposition can lead to release of irritating gases and vapors. Runoff to sewer may create fire or explosion hazard.

Flammable/toxic gases may accumulate in confined areas (basements, tanks, etc.). Do not allow runoff from fire-fighting to enter drains or water courses.

5.3 Advice for fire fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors and/or aerosols. Do not use steel or aluminum tools or equipment. Avoid substance contact. Avoid dust formation. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection, see section 8.

6.2 Environmental Precautions

Should not be released into the environment. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and clean up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralizing material. Dispose of properly. Avoid dust formation. Clean up affected area.

6.4 Reference to other sections

For disposal, see section 13.

SECTION 7. HANDLING AND STORAGE**7.1 Precautions for safe handling**

Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Keep away from clothing and other combustible materials. Avoid dust formation. Use only under a chemical fume hood. If swallowed, then seek immediate medical assistance.

7.2 Conditions for safe storage, including any incompatibles

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep refrigerated. Keep away from direct sunlight. Do not store in metal containers. Containers should be vented periodically in order to overcome pressure buildup. Do not store near combustible materials.

7.3 Specific end use(s)

For research use only. Not for diagnostic use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Workplace Exposure Limits (WEL)

Chemical Name	Cas-No.	Value	Control Parameters	Basis
Hydrogen peroxide	7722-84-1	TWA	1 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 ppm 1.4 mg/m ³	OSHA PEL Recommended Exposure Limits
		TWA	1 ppm 1.4 mg/m ³	USA. NIOSH Recommended Exposure Limits
		IDLH	75 ppm	USA. NIOSH Recommended Exposure Limits
Sodium Azide	26628-22-8	TWA	0.11 ppm 0.1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.1 ppm 0.3 mg/m ³	OSHA PEL Recommended Exposure Limits
		TWA	0.1 ppm 0.3 mg/m ³	USA. NIOSH Recommended Exposure Limits

8.2 Exposure controls

Appropriate Engineering Controls

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Change contaminated clothing. Wash hands after working with substance.

Personal Protective Equipment

Eye/Face Protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Tightly fitting safety goggles.

Skin Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection

Lightweight, long sleeved protective clothing. Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN14387 and other accompanying standards relating to the used respiratory protection system.

Respiratory Protection

Environmental Exposure Controls

Should not be released in the environment. Prevent product from entering drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Liquid.

9.2 Other information

Not available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up, a dust explosion potential may generally be assumed.

10.2 Stability

Sensitivity to light. Oxidizer: Contact with combustible/organic material may cause fire.

10.3 Possibility of hazardous reactions

Violent reactions possible with:
Strong oxidizing agents

10.4 Conditions to avoid

Incompatible products. Excess heat. Exposure to light. Combustible material. Do not subject to grinding/shock/friction. Avoid dust formation.

10.5 Incompatible materials

Acids, Peroxides, Acid chlorides, Metals, Oxidizing agents, Reducing agents, Alcohols, Ammonia, Copper, Lead oxides, Cyanides, Sulfides, Acetone, Aluminum, Combustible material

10.6 Hazardous decomposition products

Hydrogen, Oxygen, Nitrogen oxides (NO_x), Sodium oxides

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicological information

Acute Toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LD50 (inhalation, rat/mouse)
Water	-	Not listed	Not listed
Hydrogen Peroxide	376 mg/kg (Rat) (90%) 910 mg/kg (Rat) (20-60%) 1518 mg/kg (Rat) (8-20% sol)	> 2000 mg/kg (Rabbit)	LC50 = 2000 mg/m ³ (Rat) 4 h
Sodium azide	27 mg/kg (Rat)	20 mg/kg (Rabbit)	0.054-0.52 mg/L (dust)

Principle Routes of exposure

Inhalation
Ingestion
Skin contact

Eye contact

May cause irritation of respiratory tract.
May be harmful if swallowed.
May cause skin irritation in susceptible persons.
May cause severe eye burns. May cause irritation.

Potential Health Effects

Carcinogenetic effects

This product contains one or more substances which are classified as carcinogenic.

Mutagenic effects

Mutagenic effects have occurred in experimental animals.

Reproductive toxicity

No data available.

Sensitization

No data available.

Specific target organ toxicity (single exposure)

No data available.

Specific target organ toxicity (repeated exposure)

No data available.

Aspiration hazard

No data available.

Other adverse effect

Tumorigenic effects have been reported in experimental animals.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Log Pow
Hydrogen peroxide	EC50 2.5 mg/L (72 h)	EC50 7.7 mg/L (24 h)	LC50: 16.4 mg/L (96h) (P. promelas)	-1.1
Sodium azide	Not listed	Not listed	LC50: = 0.7 mg/L (96 h) (Lepomis macrochirus) LC50: = 0.8 mg/L (96 h) (Oncorhynchus mykiss) LC50: = 5.46 mg/L (96 h) (Pimephales promelas)	-

12.2 Persistence and degradability

Persistence is unlikely. Decompress soluble in water based on information available.

12.3 Bioaccumulation potential

No data available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Other adverse effects

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Avoid release into the environment. Disposal of contents and containers must comply with all requirements of local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

SECTION 14. TRANSPORT INFORMATION

IATA/ADR/DOT-US/IMDG

Not dangerous goods. Not regulated by transport regulations.

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not applicable
14.4 Packaging group	Not applicable

14.5 Environmental hazards

Not applicable

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US Federal Regulations

SARA 311/312

See section 2 for more information.

SARA 313

Chemical Name	CAS No	Weight %	SARA 313-Threshold Values %
Hydrogen peroxide	Not applicable	Not applicable	Not applicable
Sodium azide	26628-22-8	> 95	1.0

CERCLA Reportable Quantity

Chemical Name	Hazardous Substance RQs	CERCLA EHS RQs
Hydrogen peroxide	-	1000 lb
Sodium azide	1000 lb	1000 lb

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

Chemical Name	Massachusetts-RTK	New Jersey-RTK	Pennsylvania-RTK	Illinois-RTK	Rhode Island-RTK
Hydrogen peroxide	-	-	Listed	-	Listed
Sodium azide	Listed	Listed	Listed	-	Listed

California Proposition 65

This product does not contain any Proposition 65 chemicals.

International Regulations

No data available.

Substances listed under Annex I of Regulation (EC) No 689/2008

None.

Restricted substances under Annex V of Regulation (EC) No 689/2008

None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

None.

Other countries

Chemical Name	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)	ENCS (Japan)	PICCS (Philippines)
Water	Listed	-	-	Listed
Hydrogen peroxide	Listed	-	Listed	Listed
Sodium azide	Listed	-	Listed	Listed

Chemical Name	AICS (Australia)	South Korea (KECL)	Canada (DSL)	NDSL
Water	Listed	Listed	Listed	-
Hydrogen peroxide	Listed	Listed	Listed	-
Sodium azide	Listed	Listed	Listed	-

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16. OTHER INFORMATION

Disclaimer

The above information is believed to be correct but shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since Molecular Instruments, Inc. cannot control the actual methods, volumes, or conditions of use, Molecular Instruments, Inc. shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. The information in this safety data sheet (SDS) does not constitute a warranty, expressed or implied, including any implied warranty of merchantability or fitness for any particular purpose. See www.hcrimaging.com/legal/terms for our terms of sale.