SAFETY DATA SHEET

1. Identification

Product identifier	**PeridoxRTU (Ca)**
Other means of identification	
SDS number	NONH32083209
Product code	HC85365, HC85365IR, HC85366, HC85366IR
Recommended use	Ready to use. Disinfectant.
Recommended restrictions	DO not dilute. For professional use only.
Manufacturer/Importer/Supplier/Distributor information	
Company name	Contec, Inc.
Address	525 Locust Grove Spartanburg, SC 29303 USA
Telephone	1-864-503-8333
Email	SDS@contecinc.com
Emergency phone number	Call CHEMTREC day or night USA/Canada: 1.800.424.9300 Mexico: 1.800.681.9531 Outside USA/Canada: +1.703.527.3887

2. Hazard identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements

Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves and eye/face protection.
Response	IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: 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/attention.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Supplemental information	None.
Other hazards	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetic acid		64-19-7	< 10
Hydrogen peroxide		7722-84-1	1 - 5
Peracetic acid		79-21-0	0.1 - 1

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The exact concentrations of the above listed chemicals are being withheld as a trade secret. Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation Remove to fresh air and keep at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Remove any contact lenses and open eyelids wide apart. Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth thoroughly with water. If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without advice from poison control center. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Ingestion may cause irritation and malaise. These symptoms are reversible.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed. Carbon oxides (COx). Acetic acid. Thermal decomposition or combustion may produce: oxygen. In a fire, hydrogen peroxide decomposes to molecular oxygen, which can accelerate the burning of flammable materials or cause spontaneous combustion.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Evacuate area. Cool containers exposed to flames with water until well after the fire is out. Containers can build up pressure if exposed to heat (fire). Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.

Specific methods Do not enter confined fire space without full protective gear. Fight fire from a protected location.

General fire hazards Due to high temperatures caused by fire this product may decompose releasing oxygen. Solution contains a strong oxidizer. This product may become an oxidizing liquid if concentrated by evaporation.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapours or mists. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

This product is miscible in water. Should not be released into the environment. Prevent spills or remaining (or excess) product from entering drains. Large spills may be Neutralised with dilute alkaline solutions of soda ash, or lime. Small quantities can be dissolved/diluted in water and flushed to drain.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Retain and dispose of contaminated wash water. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Ensure adequate ventilation. Avoid inhalation of vapours and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Avoid contamination.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Store in tightly closed container. Store away from incompatible materials (see section 10 of the SDS). Protect from freezing. Keep upright.
Store at temperatures below: 30°C.
Shelf life before opening (in months): 24.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetic acid (CAS 64-19-7)	STEL	15 ppm	
	TWA	10 ppm	
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm	
Peracetic acid (CAS 79-21-0)	STEL	0.4 ppm	Inhalable fraction and vapour.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm
Hydrogen peroxide (CAS 7722-84-1)	TWA	1.4 mg/m3
		1 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	15 ppm
	TWA	10 ppm
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Acetic acid (CAS 64-19-7)	STEL	15 ppm	
	TWA	10 ppm	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm	
Peracetic acid (CAS 79-21-0)	STEL	0.4 ppm	Inhalable fraction and vapour.

Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191)

Components	Type	Value
Acetic acid (CAS 64-19-7)	STEL	37 mg/m3
		15 ppm
	TWA	25 mg/m3
		10 ppm
Hydrogen peroxide (CAS 7722-84-1)	TWA	1.4 mg/m3
		1 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Acetic acid (CAS 64-19-7)	STEL	15 ppm	
	TWA	10 ppm	
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm	
Peracetic acid (CAS 79-21-0)	STEL	0.4 ppm	Inhalable fraction and vapour.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Acetic acid (CAS 64-19-7)	STEL	37 mg/m3	
		15 ppm	
	TWA	25 mg/m3	
		10 ppm	
Hydrogen peroxide (CAS 7722-84-1)	TWA	1 ppm	
Peracetic acid (CAS 79-21-0)	STEL	0.4 ppm	Inhalable fraction and vapour.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
Acetic acid (CAS 64-19-7)	15 minute	15 ppm
	8 hour	10 ppm
Hydrogen peroxide (CAS 7722-84-1)	15 minute	2 ppm
	8 hour	1 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Depending on the task: Wear appropriate chemical resistant gloves. Take note of the information given by the manufacturer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Suitable gloves can be recommended by the glove supplier.

Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Check with respiratory protective equipment suppliers. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.
Thermal hazards	None required during normal conditions.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Colour	White to grey.
Odour	Acetic acid. Vinegar-like.
Odour threshold	Property has not been measured.
pH	> 1.9 - < 2.2
Melting point/freezing point	Property has not been measured.
Initial boiling point and boiling range	Property has not been measured.
Flash point	Property has not been measured.
Evaporation rate	Property has not been measured.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Property has not been measured.
Explosive limit – upper (%)	Property has not been measured.
Vapour pressure	Property has not been measured.
Vapour density	Property has not been measured.
Relative density	Property has not been measured.
Solubility(ies)	
Solubility (water)	Completely soluble in water.
Partition coefficient (n-octanol/water)	Not applicable, product is a mixture.
Auto-ignition temperature	Property has not been measured.
Decomposition temperature	Property has not been measured.
Viscosity	Property has not been measured.
Other information	
Density	8.53 lb/gal 1.02 g/ml
Dynamic viscosity	1 cP
Explosive properties	Not explosive.
Kinematic viscosity	Property has not been measured.
Oxidising properties	Oxidising.
Particle size	Not applicable (the material is a liquid).
Percent volatile	> 99 %

10. Stability and reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, sparks, and flame. Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Bases. Strong acids. Reducing Agents. Some metals. Strong alkaline. Chlorinated compounds.
Hazardous decomposition products	Carbon oxides. Acetic acid. Oxygen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Ingestion may cause irritation and malaise.
Symptoms related to the physical, chemical and toxicological characteristics	Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Ingestion may cause irritation and malaise. These symptoms are reversible.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Acetic acid (CAS 64-19-7)		
Acute		
Dermal		
LD50	Rabbit	1060 mg/kg
Inhalation		
Vapour		
LC50	Rat	11.4 mg/l, 4 Hours

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitisation

Canada - Alberta OELs: Irritant

Hydrogen peroxide (CAS 7722-84-1)	Irritant

Respiratory sensitisation	Not a respiratory sensitiser.
Skin sensitisation	This product is not expected to cause skin sensitisation.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

ACGIH Carcinogens

Hydrogen peroxide (CAS 7722-84-1)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Peracetic acid (CAS 79-21-0)	A4 Not classifiable as a human carcinogen.

Canada - Manitoba OELs: carcinogenicity

Hydrogen peroxide (CAS 7722-84-1)	Confirmed animal carcinogen with unknown relevance to humans.
Peracetic acid (CAS 79-21-0)	Not classifiable as a human carcinogen.

Canada - Quebec OELs: Carcinogen category

Hydrogen peroxide (CAS 7722-84-1)	Detected carcinogenic effect in animals.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydrogen peroxide (CAS 7722-84-1)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
Acetic acid (CAS 64-19-7)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	65 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	75 mg/l, 96 hours
Hydrogen peroxide (CAS 7722-84-1)			
Aquatic			
Acute			
Algae	EC50	Chlorella vulgaris	2.5 mg/l, 72 Hours
Crustacea	EC50	Daphnia magna	2.4 mg/l, 48 Hours
Fish	LC50	Pimephales promelas	16.4 mg/l, 96 Hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Acetic acid (CAS 64-19-7)	-0.17
Peracetic acid (CAS 79-21-0)	-1.07

Mobility in soil This product is water soluble and may disperse in soil.

Other adverse effects The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

General information IATA: Not recommended for transport.
IATA classification is not relevant as the material is not transported by air.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

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Further information

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