



SAFETY DATA SHEET

Revision Date: 13 November 2018 Rev. F

Section 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier:

Product Name: **MICRO-X® DIALYZER REPROCESSING CONCENTRATE**

Other Means of identification: MX-30004

Recommended use of the chemical and restrictions on use

Recommended Use: Cleaning and disinfection of hollow fiber dialyzers

Manufacturer/Supplier:

RPC
3984 Quebec Ave N
Minneapolis, MN 55427
USA
800-647-3873

Emergency Telephone:

CHEMTREC
1-800-424-9300

Section 2. HAZARDS IDENTIFICATION**GHS Classification of the substance or mixture:**

Physical:	Health:	Environment:
Oxidizer Category 2	Acute Toxicity Category 4 (oral, dermal and inhalation) Eye Corrosion Category 1 Skin Irritation Category 2 Specific Target Organ Toxicity, Single Exposure Category 3 (respiratory irritant)	Aquatic Acute Toxicity Category 2 Aquatic Chronic Toxicity Category 3

GHS Label Elements:

Hazard Pictograms:



Signal word: Danger! Contains hydrogen peroxide, acetic acid, and peracetic acid.

Hazard statements:

Statements of Hazard

H272 May intensify fire; oxidizer
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H401 Toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.

Prevention

P210 Keep away from heat.
P220 Keep away from clothing and all combustible materials.
P221 Take any precaution to avoid mixing with combustibles and organic solvents.
P261 Avoid breathing mist, vapor, or spray.
P264 Wash thoroughly after handling.

Response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.
P302+P352 IF ON SKIN: Wash with plenty of water.
P312 Call a POISON CENTER or doctor if you feel unwell.
P362+P364 Take off contaminated clothing and wash it before reuse.
P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor if you feel unwell.
P301+P312 IF SWALLOWED: Call a POISON CENTER if you feel unwell.
P330 Rinse mouth.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Disposal
P501 Dispose of contents and container in accordance with local and national regulations.

Storage
P405 Store locked up.

Other Hazards: No additional information available.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS -No	Weight %
Hydrogen Peroxide	7722-84-1	27.0%
Acetic Acid	64-19-7	6.7%
Peracetic Acid	79-21-0	4.0%
Water	7732-18-5	-

Section 4. FIRST AID MEASURES

Eye Contact: Immediately flush with large amounts of water for at least 15 minutes while holding eyelids apart. Remove contact lenses. Get immediate medical attention.

Skin Contact: Immediately flush with large amounts of water for at least 15 minutes. If clothing is contaminated, remove clothing, wash skin and wash clothing before reusing.

Ingestion: Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.

Inhalation: If inhaled, remove to fresh air. Give artificial respiration if needed. If breathing, oxygen should be administered by a qualified person. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: May cause severe eye irritation and burns. Causes skin irritation. Inhalation of vapor or mist may cause severe irritation of the upper respiratory tract. If swallowed, may cause intestinal irritation and discomfort. May be harmful if swallowed, inhaled or absorbed through the skin.

Indication of immediate medical attention/special treatment needed: Immediate medical attention is required for all routes of contact.

Section 5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media:**

Use large quantities of water, water spray, dry chemical, carbon dioxide.

Unsuitable Extinguishing Media:

Do not use water jet.

Specific Hazards Arising from the Chemical:

Contains hydrogen peroxide which is a strong oxidizer and may increase the flammability of combustible or flammable materials or powdered metals. If allowed to dry, solid residue may present a fire hazard. Hydrogen peroxide will not burn but decomposes to release oxygen which supports combustion.

Explosion Hazard:

Contamination can cause rapid decomposition and an explosive rupture of the container if not properly vented.

Special Protective Equipment and Precautions for Fire-Fighters:

Firefighters should wear full protective gear and respiratory protection. Use water spray to cool exposed surfaces.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:

Use personal protective equipment. Refer to section 8. Evacuate personnel to safe areas.

Environmental Precautions:

If allowed by federal, state or local regulatory authority, flush spill to the sewer. Neutralize with sodium bicarbonate or sodium carbonate.

Methods and Materials for Containment and Cleaning Up:

Prevent further leakage or spillage if safe to do so. Soak up spill with mops, towels or similar materials. Rinse items used for soaking up spill with copious amounts of water.

Section 7. HANDLING AND STORAGE

Precautions for Safe Handling:

Do not get in eyes, on skin or on clothing. Do not breathe vapors. Open container with care in a well-ventilated area. Do not return unused material to original container.

Conditions for Safe Storage, Including any Incompatibilities:

Store at temperatures not exceeding 86°F (30°C). Store in cool dry area. Protect from sunlight. Store locked up.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:

Hydrogen Peroxide	1 ppm TWA ACGIH TLV 1 ppm TWA OSHA PEL
Acetic Acid	10 ppm TWA OSHA PEL 10 ppm TWA, 15 ppm STEL ACGIH TLV
Peracetic Acid	0.4 ppm TWA (inhalable fraction and vapor) proposed ACGIH TLV

Appropriate Engineering Controls:

Use with adequate ventilation to keep exposure levels below recommended exposure limits.

Individual Protection Measures and Personal Protective Equipment:

- Skin Protection: Wear chemically resistant protective gloves. Wear suitable protective clothing.
Wear an apron if splashes are likely and rubber boots for spill response.
- Eye Protection: Wear ANSI approved safety glasses or goggles and face shield if splashes are likely.
- Other Information: If air contamination is above the permitted levels, use a NIOSH approved respirator.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Physical State:	Liquid
Odor:	Acidic
Odor Threshold:	No data available
pH:	0.5 – 1.1
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash Point:	No data available
Evaporation Rate:	No data available
Flammability (solid gas):	Not flammable
Upper/lower Flammability / Explosive Limits:	No data available
Vapor Pressure:	No data available
Vapor Density at 20°C:	No data available
Relative Density:	1.12
Solubility in Water:	Soluble
Partition Coefficient: n-octanol/water:	No data available
Auto-Ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available

Section 10. STABILITY AND REACTIVITY

Reactivity:	Decomposition of hydrogen peroxide liberates heat and oxygen. Do not mix with anything but water.
Chemical Stability:	Stable under normal handling conditions. Unstable when exposed to heat and contaminants. Strong oxidizers, reacts violently with many other materials, particularly flammable and combustible organic materials.
Possibility of Hazardous Reactions:	Oxidizers may react with many other materials, particularly flammable and combustible organic materials. Elevated temperatures can increase the decomposition of the product. Contact with organic substance may cause fire or explosion of the product. Contact with metals, metallic ions, alkalies, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.
Conditions to Avoid:	Keep away from flames and high temperatures. Avoid light and heat and keep in a closed but vented container to prevent evaporation (concentration) and contamination. Explosive pressure rupture of the container can occur if not properly vented.
Incompatible Materials:	Acids, bases, heat, reducing agents, organic materials, dirt, alcohols and glycols, aldehydes, amides, amines, azo, diazo and hydrazines, carbonates, cyanides, dithiocarbamates, esters, ethers, hydrocarbons, halogenated organics, rust, and many metals.
Hazardous Decomposition Products:	Decomposition of hydrogen peroxide liberates heat and oxygen. High temperatures and the presence of contamination increases the rate of decomposition. Explosive pressure rupture of the container can occur if not properly vented. Decomposition of acetic acid and peracetic acid will release oxides of carbon.

Section 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects:

Eyes:	Causes severe irritation with redness, tearing and possible burns. Permanent eye damage can occur.
Skin:	May cause moderate to severe irritation with whitening of the skin. Peracetic acid may be harmful if absorbed through the skin.
Ingestion:	Swallowing may cause pain, vomiting, diarrhea, distention of the stomach (due to rapid liberation of oxygen), and possible perforation of the stomach. Peracetic acid may be harmful if swallowed.
Inhalation:	Inhalation of vapors or mists may cause severe irritation of the nose, throat and upper respiratory tract. Peracetic acid may be harmful if inhaled.
Chronic:	None known.
Sensitization:	This material is not known to cause sensitization.
Carcinogenicity:	None of the components present are listed as a carcinogen or suspected carcinogen by IARC, ACGIH or OSHA.
Germ Cell Mutagenicity:	Hydrogen peroxide has tested positive for mutagenicity in some test systems. Acetic acid was found to be negative in the AMES test for mutagenicity. Peracetic acid tested negative in in-vitro and in-vivo assays.
Reproductive Toxicity:	In a 90-day reproductive oral study with mice, hydrogen peroxide showed no effects in the reproductive organs in both male and female mice. It was presumed that the rapid degeneration of hydrogen peroxide on absorption and due to local effects, studies would be unlikely to reveal any specific development effects. Acetic acid: Suckling rats were exposed to one of three solutions, 2.6 x 10 ⁻³ M lead acetate, 5 x 10 ⁻³ M acetic acid or water, from parturition until the pups were 18 days old. Pups demonstrated above normal preweaning body weights and were significantly less active than normal in an open field by day 44.

Numerical Measure of Toxicity:

Hydrogen Peroxide	
LD50 Oral rat	1193-1270 mg/kg (35%)
LD50 Skin rabbit	>2000 mg/kg (35%)
Acetic Acid	
LD50 Oral rat	3310 mg/kg (5%)
Peracetic Acid	
LD50 Oral rat	1910 mg/kg
LD50 Skin rabbit	1147 mg/kg
LC50 Inhalation rat	4.1 mg/L/4 hr. (as aerosol)

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:	This product is toxic to birds, fish and aquatic invertebrates.
Persistence and Degradability:	Hydrogen peroxide, acetic acid, and peracetic acid rapidly degrade in the environment.
Bioaccumulative Potential:	Hydrogen peroxide is decomposed by enzymatic action and does not accumulate in cell systems. Acetic acid and peracetic acid are expected to have a low potential to bioaccumulate.
Mobility in Soil:	Hydrogen peroxide degrades in soil to form oxygen in water.
Other Adverse Effects:	No data available.

Section 13. WASTE DISPOSAL CONSIDERATIONS

Dispose of this product in accordance with all applicable Federal, State, and local regulations.

Section 14. TRANSPORT INFORMATION

UN Number:	UN3149
UN Proper Shipping Name:	Hydrogen peroxide and Peroxyacetic acid mixtures, stabilized
Transport Hazard Class:	5.1 (8)
Hazard Labels (DOT):	



Packing Group:	II
Other Information:	No supplementary information available
Special Transport Precautions:	Do not handle until all safety precautions have been read and understood.

Section 15. REGULATORY INFORMATION**Safety, Health and Environmental Regulations**

International Inventory Status								
Ingredient	CAS No	EC	Japan	Australia	Korea	Canada:DSL	Canada:NDSL	
Hydrogen Peroxide	7722-84-1	YES	YES	YES	YES	YES	NO	
Peracetic Acid	79-21-0	YES	YES	YES	YES	YES	NO	
Acetic Acid	64-19-7	YES	YES	YES	YES	YES	NO	
Water	7732-18-5	YES	YES	YES	YES	YES	NO	
United States								
Ingredient	CAS No	OSHA	CAA	CWA	RCRA	SARA 302	SARA 313	TSCA
Hydrogen Peroxide	7722-84-1	YES	NO	NO	NO	NO	NO	NO
Peracetic Acid	79-21-0	YES	YES	NO	NO	YES	YES	NO
Acetic Acid	64-19-7	YES	NO	YES	NO	NO	NO	NO
Water	7732-18-5	YES	NO	NO	NO	NO	NO	NO

Section 16. OTHER INFORMATION**NFPA Ratings:**

Flammability: 0
 Health: 3
 Specific Hazard: OX

HMIS Ratings:

Flammability: 0
 Health: 3
 Reactivity: 1
 PPE: B

SDS Origination Date: 4 July 2007
SDS Revision Date: 13 November 2018
SDS Rev: F
SDS Prepared By: RPC
 3984 Quebec Ave N
 Minneapolis, MN 55427

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assume any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazard and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.