


SAFETY DATA SHEET

ReSTore

Effective date 1 January 2021

SECTION 1: Identification	
1A: Product Names	ReSTore
1B: Common Name	Cation exchange resin cleaner
1C: Intended use	Removal of iron and other foulants from ion exchange systems.
1D: Manufacturer Address	ResinTech, Inc. 1801 Federal Street, Camden, NJ 08105 USA
Contact Information:	856-768-9600 ixresin@resintech.com

SECTION 2: Hazard Identification	
2A: OSHA Hazard classification 0 = Negligible 1 = Slight 2 = Moderate 3 = High 4 = Extreme	Corrosive, severe skin burns, and eye damage. Health - 2 (2 = Moderate) Fire - 0 (0 = Negligible) Reactivity - 1 (1 = Slight) Special - N/A
 WARNING	(Contains phosphoric acid & Alkyl [C12, C14, C16] Dimethyl Benzyl Ammonium Chloride) H314: Causes severe skin burns and eye damage

SECTION 2: Hazard Identification Continued

Precautionary Statements	<p>P264: Wash hands thoroughly after handling.</p> <p>P280: Wear protective gloves/protective clothing/eye protection/face protection</p> <p>P260: Do not breathe mist/vapors/spray.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.</p> <p>P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p>
2B: Product description	Phosphoric acid.
2C: Precautions for use	Wear protective gloves and eye protection.
Potential health effects	Causes severe skin burns and eye damage.
2D: Environmental effects	See Section 12

SECTION 3: Composition/ Information on Ingredients

3A: Chemical name	Mixture
3B: Ingredients: Phosphoric Acid	CAS# 7664-38-2 (2-20%)
Alkyl (C12, C14, C16) Dimethyl Benzyl Ammonium Chloride	CAS# 68424-85-1 (<1%)
Water	CAS# 7732-18-5 (60-90%)

SECTION 4: First Aid Measures	
General Information:	Immediately remove any clothing soiled by the product. Isolate all contaminated clothing and shoes. Take affected person(s) out into fresh air. Seek prompt medical attention.
4A: Inhalation	Supply fresh air; administer oxygen if breathing is difficult; do not use mouth-to-mouth on victim, use a pocket mask, or other respiratory medical device if victim is not breathing.
4B: Skin	Immediately rinse with water for 20 minutes, wash affected skin with soap & water. Seek medical help for blistering or open wounds.
4C: Eye contact	Immediately flush eyes with running water for at least 20 min., remove contacts (if applicable). Seek immediate medical help, preferably with an ophthalmologist.
4D: Ingestion	Rinse out mouth and drink plenty of water, do NOT induce vomiting; call for medical help immediately. Do not leave victim unattended.

SECTION 5: Fire Fighting Measures	
5A: Flammability	NFPA Fire rating = 0
5B: Extinguishing media	Use fire extinguishing methods suitable to the surrounding conditions.
5C: Fire fighting Procedures	Follow general fire fighting procedures indicated in the work place. Secure area to prevent run-off and possible water source contamination.
5D: Protective Equipment	MSHA/NIOSH approved self-contained breathing gear, full protective suit.
5E: Combustion Products	Oxides of phosphorus and other toxic and corrosive gases and vapors.
5F: Special Hazards	Formation of toxic and corrosive gases is possible during heating or in case of fire.

SECTION 6: Accidental Release Measures	
6A: Personal Precautions	Wear protective equipment. Keep unprotected persons away. Use respiratory device against the effects of fumes/dust/aerosol. Ensure adequate ventilation.

SECTION 6: Accidental Release Measures	
6B: Incompatible Chemicals	Fluorine, strong oxidizing or reducing agents, strong bases, metals, sulfur trioxide, phosphorous pentoxide.
6C: Environmental Precautions	Keep out of public sewers and waterways.
6D: Containment Materials	Use plastic or suitable metal containers.
6E: Methods of Clean-up	Exercise caution during neutralization, as considerable heat may be generated, causing sudden spattering and foaming. Use limestone, soda ash or baking soda to neutralize and absorb spills. Sweep up and shovel into suitable closed containers for disposal. Avoid generating and breathing any dusts. Dispose of contaminated material in accordance with Section 13.

SECTION 7: Handling and Storage	
7A: Handling	Avoid prolonged skin contact. Keep resin moist and avoid allowing resin to completely dry.
7B: Storage	Keep containers tightly closed in a cool, dry, well ventilated place. Keep away from incompatible materials, especially strong bases. Store in plastic, glass or stainless steel containers. Do not store in mild steel or aluminum containers. Do NOT store with food products.
7C: TSCA considerations	All ingredients are listed on the TSCA Inventory in compliance with State and Federal Regulations.

SECTION 8: Exposure Controls/Personal Protection

8A: OSHA exposure limits	
Ingredients with limit values that require monitoring at the workplace: 7664-38-2 phosphoric acid IOELV (EU)	
Short-term value:	2 mg/m ³
Long-term value:	1 mg/m ³
PEL (USA)	1 mg/m ³
REL (USA)	
Short-term value	3 mg/m ³
Long-term value:	1 mg/m ³
TLV (USA)	
Short-term value:	3 mg/m ³
Long-term value:	1 mg/m ³
EL (Canada)	
Short-term value:	3 mg/m ³
Long-term value:	1 mg/m ³
EV (Canada)	
Short-term value:	3 mg/m ³
Long-term value:	1 mg/m ³
8B: Engineering Controls	Provide adequate ventilation.
8C: Personal Protection Measures	<p>Eye Protection- Wear goggles (or face shield with safety glasses). Contact lenses should not be worn. An emergency eyewash must be readily available and accessible.</p> <p>Respiratory Protection - Use a suitable respiratory protective device, per OSHA 29 CFR 1910.134 when aerosol or mist is formed, or in case of insufficient ventilation. For spills, respiratory protection is advised.</p> <p>Protective Gloves - Wear protective gloves selected for both durability and permeation resistance. Nitrile rubber, Butyl rubber and Neoprene gloves are generally appropriate, but selection of the glove material must be confirmed by the glove manufacturer.</p> <p>Body protection - Wear acid resistant protective clothing, apron or full body suit, as needed.</p>

SECTION 9: Physical and Chemical Properties

Appearance	Colored liquid
Flammability or explosive limits	N/A
Odor	Slight

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SECTION 9: Physical and Chemical Properties	
Physical State	Liquid
Vapor pressure	Not available
Odor threshold	Not determined
Vapor density	Not determined
pH at 20° C	<1
Relative density	Not determined
Melting point/freezing point	approx.. -9° C
Solubility	Completely miscible in water
Boiling point	approx. 101° C
Evaporation rate	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Not determined

SECTION 10: Stability and Reactivity	
10A: Stability	No decomposition if used and stored according to specifications.
10B: Conditions to Avoid	Incompatible materials.
10C: Hazardous by-products	Oxides of phosphorus
10D: Incompatible materials	Fluorine, strong oxidizing or reducing agents, strong bases, metals, sulfur trioxide, phosphorous pentoxide.
10E: Combustion Products	Does not occur

SECTION 11: Toxicological Information	
11A: Likely Routes of Exposure	Skin, respiratory or eye contact.
11B: Effects of exposure	<p>Delayed - Irritation of skin and mucous membranes.</p> <p>Immediate (acute) - May cause mild to severe irritation or chemical burn to skin, eye and mucous membranes.</p> <p>Ingestion may lead to damage to the mouth and throat, and the potential for perforation of the esophagus and stomach.</p> <p>Chronic - No sensitizing effects known.</p>

SECTION 11: Toxicological Information

11C: Toxicity Measures	Skin Adsorption - Not available Eye - Not available Ingestion - Not available Inhalation - Not available
11D: Toxicity Symptoms	Skin Adsorption - Mild rash to severe chemical burn Ingestion - Burns to the mouth and throat, and the potential for perforation of the esophagus and stomach. Inhalation - Irritation or chemical burn to mucous membranes.
11E: Carcinogenicity	None known

SECTION 12: Ecological information

12A: Eco toxicity	This product contains materials that are harmful to the environment.
12B: Mobility	Do not allow un-neutralized product to reach ground water, water course or sewage system.
12C: Biodegradability	See note below.
12D: Bioaccumulation	See note below.
12E: Other adverse effects	Not available.
General notes:	No specific biodegradation test data located. While acidity of this material may be readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

SECTION 13: Disposal Considerations

13A: General considerations	Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
13B: Disposal Containers	Use plastic or suitable metal containers.
13C: Disposal methods	Dispose of contents and/or containers in accordance with local, state and federal regulations. Thoroughly rinse empty containers with water before disposing of containers in trash.
13D: Sewage Disposal	Not recommended

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SECTION 14: Transportation Information	
14A: Transportation Class	
14B: TDG	Shipping name: PHOSPHORIC ACID, LIQUID ID Number: UN1805 Hazard Class: 8 Corrosive Substances Labeling Class: 8 Packing Group: III Explosive Limit and Limited Quantity Index: 5.00 Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index: 5.00
14C: IATA	Shipping name: Phosphoric Acid Solution ID Number: UN1805 Hazard Class: 8 Corrosive Substances Labeling Class: 8 Packing Group: III
14D: DOT (49 CFR 172.101)	Shipping name: Phosphoric acid solution ID Number: UN1805 Hazard Class: 8 Corrosive Substances Labeling Class: 8 Packing Group: III Passenger aircraft/rail: 5.00 L Cargo aircraft/rail 60.00 L
14E: IMO/IMDG	Shipping name: Phosphoric Acid Solution ID Number: UN1805 Hazard Class: 8 Corrosive Substances

SECTION 15: Regulatory Information	
15A: CERCLA	None of the ingredients is listed
15B: SARA Title III	Section 302: None of the ingredients is listed Section 311/312: 7664-38-2 / Phosphoric acid Section 313: None of the ingredients is listed Section 355: None of the ingredients is listed
15C: Clean Air act	7664-38-2 / Phosphoric acid
15D: Clean Water Act	7664-38-2 / Phosphoric acid
15E: TSCA	All ingredients are listed

SECTION 15: Regulatory Information

15F: Canadian Regulations	WHMIS - 7664-38-2 / Phosphoric acid TDG - See Section 14.
15G: Proposition 65 (California)	None of the ingredients is listed

SECTION 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that their activities comply with federal, state, and local laws.

16A: Date of Revision	1 January 2021
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