

SAFETY DATA SHEET
Filter Revive - 3940

Product Name: Filter Revive
Date: 10/29/2015

SECTION 1 IDENTIFICATION

Supplier:	Phoenix Products Company 55 Container Drive Terryville, CT 06786 (860) 589-7502	Distributor:	Essentials 5070 Wallace Drive Cumming, GA 30041 (626) 305-1182
U.S. Emergency Telephone:	1-800-222-1222		
Product Name:	Filter Revive		
Synonyms:	None		
Chemical Name:	Hydrochloric Acid		
Chemical Formula:	HCl		
CAS Number:	7647-01-0		
Product Use:	Removes scum, oils, minerals and scale from spa cartridges improving filter life and water clarity.		

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Emergency Overview
Danger
Corrosive



Physical Hazards

Corrosive to metals Category 1

Health Hazards

Acute toxicity, oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Specific Target Organ Toxicity Exposure, Single	Category 3 respiratory tract irritation

Hazard Statement(s)

H290: May be corrosive to metals
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H335: May cause respiratory irritation
H333: May be harmful if inhaled

Precautionary Statements

P234: Keep only in original container.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash thoroughly with soap and water after handling.
P260: Do not breathe mist or vapors.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P321: Specific treatment (see First Aid Measures on this label).
P310: Immediately call a POISON CENTER or doctor.
P362+364: Take off contaminated clothing and wash it before reuse.
P390: Absorb spillage to prevent material damage.
P403+233: Store in a well ventilated place. Keep container tightly closed.
P405: Store locked up.

SAFETY DATA SHEET

Filter Revive - 3940

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3 **HAZARDOUS COMPONENTS**

Component	CAS Number	Percent
Hydrochloric Acid	7647-01-0	10%-15%
Phosphoric Acid	7664-38-2	<5%

SECTION 4 **FIRST-AID MEASURES**

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.

Skin Contact: Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention IMMEDIATELY. Call a physician or poison control center immediately.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed: Contact with this material will cause burns to the skin, eyes and mucous membranes.

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

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

SECTION 5 **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media: Dry chemical. Foam. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media: Water. 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.

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

Firefighting equipment/instructions: In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. 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: Should not be released into the environment. 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. Deactivation materials include lime, limestone, sodium carbonate (soda ash), sodium bicarbonate, and dilute sodium hydroxide. Prevent entry into waterways, sewer, basements or confined areas.

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

Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Do not breathe mist or vapor. Observe good industrial hygiene practices. Do not empty into drains. Use caution when combining with water; DO NOT add water to acid, ALWAYS add acid to water while stirring to prevent release of heat, steam and fumes.

Conditions for safe storage, including any incompatibilities: Store in a well-ventilated place. Store away from incompatible materials. Store in containers specially designed for this product and strength. Keep away from heat, sparks and open flame.

SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters

Exposure Limits (EH40)

Cas No.	Substance	ppm	mg/m ³	Category	Origin
7647-01-0	Hydrochloric Acid	1	2	TWA (8 h)	WEL
		5	8	STEL (15 min)	WEL
	Phosphoric Acid	-	1	TWA (8 h)	WEL
		-	2	STEL (15 min)	WEL

Biological Limit Values: No biological exposure limits noted for the ingredient(s).

SAFETY DATA SHEET

Filter Revive - 3940

Appropriate Engineering Controls: Good general ventilation (typically 10 air changes per hour) 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. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

SECTION 8 **EXPOSURE CONTROL/PERSONAL PROTECTION - Continued**

Individual protection measures, such as personal protective equipment

Eye/Face Protection: Wear safety glasses with side shields (or goggles). Face-shield. Wear a full-face respirator, if needed.

Skin Protection

Hand Protection: Chemical resistant gloves.

Other: Wear appropriate chemical resistant clothing.

Respiratory Protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene Considerations: Do not get this material on clothing. Keep away from food and drink. 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.

SECTION 9 **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Clear to blue liquid.
Odor:	Slight
Odor Threshold:	Not available.
pH Factor:	<2
Boiling Point:	>212°F
Melting Point:	Not available.
Evaporation Rate:	Not available.
Flash Point:	>200°F
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Flammability (solid, gas):	Not available.
Lower Flammable Limit:	Not available.
Upper Flammable Limit:	Not available.
Vapor Pressure:	Not available.
Relative Vapor Density at 20 °C:	Not available.
Relative Density:	Not available.
Specific Gravity:	1.086
Solubility:	Soluble.
Partition coefficient (n-octanol/water):	Not available.
Viscosity:	Not available.

SECTION 10 **STABILITY AND REACTIVITY**

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: Material is stable under normal conditions.

SAFETY DATA SHEET

Filter Revive - 3940

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Contact with metal may release flammable hydrogen gas. Contact with incompatible materials. Do not mix with other chemicals.

Incompatible Materials: Incompatible with bases. Amines. Acid anhydrides. Metals. Organic compounds. Sulfides.

Hazardous Decomposition Products: Hydrogen chloride gas.

SECTION 11 **TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure

Inhalation: Vapors and mist will irritate throat and respiratory system and cause coughing.

Skin Contact: Causes skin burns.

Eye Contact: Causes eye burns.

Ingestion: Harmful if swallowed. Causes digestive tract burns. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Symptoms related to the physical, chemical and toxicological characteristics: Contact with this material will cause burns to the skin, eyes and mucous membranes. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute Toxicity: Harmful if swallowed.

Components	Test (Acute)	Species	Test Results
Hydrochloric Acid (CAS 7647-01-0)	Inhalation – LC50	Rat	3124 mg/l, 1 Hours
	Oral – LD50	Rabbit	900 mg/kg

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Respiratory or Skin Sensitization

Respiratory Sensitization: Not available.

Skin Sensitization: No data available.

Germ Cell Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Hydrochloric acid (CAS 7647-01-0): 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: No data available.

Aspiration Hazard: Not available.

Chronic Effects: Prolonged inhalation may be harmful.

SAFETY DATA SHEET
Filter Revive - 3940

SECTION 12 **ECOLOGICAL INFORMATION**

Cas No.	Chemical Name		Method	Dose	H	Species
7664-38-2	Phosphoric Acid	Acute fish toxicity	LC50	138 mg/l	96	Gambusia affinis
7647-01-0	Hydrochloric Acid	Acute fish toxicity	LC50	862 mg/l	96	Leuciscus idus
		Acute fish toxicity	LC50	282 mg/l	96	Western mosquitofish (Gambusia affinis)

SECTION 12 **ECOLOGICAL INFORMATION - Continued**

Ecotoxicity: Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 **DISPOSAL CONSIDERATIONS**

Disposal instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. 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: Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14 **TRANSPORT INFORMATION**



SAFETY DATA SHEET

Filter Revive - 3940

DOT: UN Number: 3264
 UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
 Transport Hazard Class: 8
 Packing Group: II

TDG: UN Number: 3264
 UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
 Transport Hazard Class: 8
 Packing Group: II

MEX: UN Number: 3264
 UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
 Transport Hazard Class: 8
 Packing Group: II

SECTION 14	TRANSPORT INFORMATION - Continued
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IMDG: UN Number: 3264
 UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
 Transport Hazard Class: 8
 Packing Group: II
 EMS-No: F-A, S-B

IATA: UN Number: 3264
 UN Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S.
 Transport Hazard Class: 8
 Packing Group: II

SECTION 15	REGULATORY INFORMATION
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US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4): Hydrochloric acid (CAS 7647-01-0) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - Yes

SARA 302 Extremely Hazardous Substance

Chemical Name	CAS Number	Reportable Quantity	Threshold Planning Quantity	Threshold Planning Quantity, Lower Value	Threshold Planning Quantity, Upper Value

SAFETY DATA SHEET

Filter Revive - 3940

Hydrochloric acid	7647-01-0	5000	500 lbs		
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SARA 311/312 Hazardous Chemical: Yes

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hydrochloric acid (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Hydrochloric acid (CAS 7647-01-0)

Safe Drinking Water Act (SDWA): Not regulated.

SECTION 15 REGULATORY INFORMATION - Continued

US state regulations

US. Massachusetts RTK - Substance List

Hydrochloric acid (CAS 7647-01-0)

US. New Jersey Worker and Community Right-to-Know Act

Hydrochloric acid (CAS 7647-01-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Hydrochloric acid (CAS 7647-01-0)

US. Rhode Island RTK

Hydrochloric acid (CAS 7647-01-0)

US. California Proposition 65: California Safe Drinking Water and Toxic Enforcement Act of 1986

(Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance:

Not listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	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
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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).

SECTION 16 **OTHER INFORMATION**

HMIS

Health	3
Flammability	0
Reactivity	0

No representations or warranties, either expressed or implied, of merchant ability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which the information refers.

Date: 10/29/2015
Phoenix Products Company