

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

**Product identifier**
**Product name** RAINBOW™ Solution OTO 1 Chlorine/Bromine Test

**Other means of identification**
**Product Code(s)** R161007 R161007B R161023 R161046 R161056 210088  
**UN-No** 1789

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Laboratory chemicals. Industrial (not for food or food contact use). Test kit reagent.

**Details of the supplier of the safety data sheet**
**Manufacturer Address**
**Supplier Address**

 Pentair Water Pool and Spa  
 1620 Hawkins Avenue  
 Sanford, NC 27330  
 Telephone: 800-831-7133

**Emergency telephone number**

24 Hour Emergency Number (CHEM-TEL): USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

## 2. HAZARDS IDENTIFICATION

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1B

### EMERGENCY OVERVIEW

**DANGER**
**Hazard statements**

Causes severe skin burns and eye damage. May cause cancer.


**Appearance** Clear, colorless

**Physical state** liquid

**Odor** pungent

**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not ingest. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling.

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant.

**Other Hazards**

May be harmful if swallowed.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical name	CAS No.	Weight-%
Hydrochloric acid	7647-01-0	5.2

**4. FIRST AID MEASURES**

**FIRST AID MEASURES**

<b>General advice</b>	Do not get in eyes, on skin, or on clothing.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Drink plenty of water. Clean mouth with water. Consult a physician. Never give anything by mouth to an unconscious person.
<b><u>Self-protection of the first aider</u></b>	Use personal protective equipment. See Section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Water spray. Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Avoid

contact with skin, eyes, and inhalation of vapors.

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for cleaning up** Neutralize spill with alkaline material (sodium bicarbonate), being careful to prevent splattering, then containerize slurry and hold for later disposal. If local regulations permit, dilute slurry with water and rinse to drain with excess water. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature. Keep away from direct sunlight. Keep away from heat and incompatibles. Keep out of the reach of children.

**Incompatible Products** Strong bases. Strong oxidizing agents. Metals. Cyanides. Sulfides. Formaldehyde.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	Ceiling 5 ppm (7mg/m <sup>3</sup> )	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Measures** Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Safety glasses with side-shields.

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

**Physical state** liquid  
**Appearance** Clear, colorless  
**Odor** pungent



<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		
Melting point / freezing point	No information available	
Boiling point / boiling range	100 °C / 212 °F	
Flash point	No information available	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	~1	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

**10. STABILITY AND REACTIVITY**

Stability	Stable under normal conditions of use and storage.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Incompatible products. Direct sunlight.
Incompatible materials	Strong bases. Strong oxidizing agents. Metals. Cyanides. Sulfides. Formaldehyde.
Hazardous decomposition products	Chlorine gas. Hydrogen gas. Hydrogen chloride.

**11. TOXICOLOGICAL INFORMATION**

Information on likely routes of exposure

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrochloric acid 7647-01-0	238 - 277 mg/kg ( Rat )	> 5010 mg/kg ( Rabbit )	= 1.68 mg/L ( Rat ) 1 h

Information on toxicological effects

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrochloric acid 7647-01-0	-	Group 3	None Established	-

*IARC (International Agency for Research on Cancer)  
 Group 3 - Not classifiable as to its carcinogenicity to humans*

**Chronic toxicity** Chronic exposure to corrosive mists or vapors may cause erosion of the teeth.

ATEmix (oral)	4577 mg/kg
ATEmix (dermal)	96346 mg/kg

ATEmix (inhalation-dust/mist) 9.6 mg/l

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Unknown Aquatic Toxicity** 0 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Hydrochloric acid 7647-01-0	None Established	282: 96 h Gambusia affinis mg/L LC50 static	None Established

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

Chemical name	Log Pow
Hydrochloric acid 7647-01-0	None Established

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods** Dispose of contents/containers in accordance with local regulations.

**Contaminated packaging** Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrochloric acid 7647-01-0	None Established	-	None Established	None Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Hydrochloric acid 7647-01-0	None Established	None Established	None Established	None Established

Chemical name	California Hazardous Waste Status
Hydrochloric acid 7647-01-0	-

**14. TRANSPORT INFORMATION**

**DOT**

Proper shipping name HYDROCHLORIC ACID SOLUTION  
 UN-No 1789  
 Proper shipping name HYDROCHLORIC ACID SOLUTION  
 Hazard Class 8  
 Packing group III  
 Reportable Quantity (RQ) 5000

**IATA**

Proper shipping name HYDROCHLORIC ACID SOLUTION  
 UN-No 1789  
 Proper shipping name HYDROCHLORIC ACID SOLUTION  
 Hazard Class 8  
 Packing group III

**IMDG/IMO**

Proper shipping name           HYDROCHLORIC ACID SOLUTION  
 UN-No                           1789  
 Proper shipping name        HYDROCHLORIC ACID, SOLUTION  
 Hazard Class                 8  
 Packing group                 III

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA                           Complies  
 DSL/NDSL                   Complies  
 EINECS/ELINCS           Complies  
 ENCS                        Does not comply  
 IECSC                       Complies  
 KECL                        Does not comply  
 PICCS                       Complies  
 AICS                         Does not comply

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Hydrochloric acid 7647-01-0	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard           Yes  
 Chronic Health Hazard        Yes  
 Fire hazard                    No  
 Sudden release of pressure hazard   No  
 Reactive Hazard               No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid 7647-01-0	5000 lb	None Established	None Established	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
Hydrochloric acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

**US State Regulations**

**California Proposition 65**

WARNING! This product contains a chemical known to the State of California to cause cancer

Chemical name	California Proposition 65
Hydrochloric acid 7647-01-0	None Established

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Hydrochloric acid 7647-01-0	X	X	X

**16. OTHER INFORMATION**

**NFPA**                      Health hazard 3                      Flammability 0                      Instability 0                      Physical and Chemical Hazards N/A

Health hazard 3



Health Hazard	<b>3</b>
Fire Hazard	<b>0</b>
Reactivity	<b>0</b>

Prepared by	Regulatory Affairs Department
Issuing Date	Feb-03-2015
Revision Date	Mar-26-2015
Reason for revision	New US GHS format

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Material Safety Data Sheet**