

SAFETY DATA SHEET



This Safety Data Sheet (SDS) complies with the requirements of the American National Standards Institute (Z400.1, 1998), U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200), and equivalent state Standards. It has also been developed in accordance with the Canadian Workplace Hazardous Materials Standard and the United Nations Globally Harmonized System of Classification of Chemicals. Refer to Section 16 of this document for the definition of terms and abbreviations.

1. PRODUCT IDENTIFICATION

PRODUCT: **Test Kit Reagent – Solution #1
OTO Chlorine Bromine Test**

PRODUCT VOLUMES: 0.5 oz; to 1 quart.

CHEMICAL NAME/CLASS: **Hydrochloric Acid Solution**

PRODUCT CODE: **B7041 (1 oz), B7212C (0.5 oz); B7412C (1 oz), B7455C (1 oz) B7021; B7510 (1 quart); Part of Test Kits B7226C, B7228; B7446C; B7448, B7770 and B7550**

PRODUCT USE: Testing of Pools and Spas

MANUFACTURER/

SUPPLIER/DISTRIBUTOR: **Valterra Products, LLC**

ADDRESS: 15230 San Fernando Mission Blvd.; Suite 107
Mission Hills, CA 91345

BUSINESS PHONE #: 818-898-1671

EMERGENCY PHONE #: CHEMTEC:1-800-255-3924

These products are sold to consumers for personal and spa maintenance use in containers of relatively small volume (i.e. less than 0.5 – 1 quart). This SDS has been developed to address safety concerns affecting those individuals working in warehouses and other places where large numbers of these containers are stored, as well as those affecting potential users of this product in industrial /occupational or manufacturing settings.

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is an acid that can cause severe skin burns and eye damage; vapors and mists of this product can cause irritation and damage the tissues of the respiratory system.

PHYSICAL DESCRIPTION: Clear, colorless, odorless solution.

HEALTH HAZARDS: This solution is corrosive. It can cause eye and skin burns; if vapors or mists are inhaled, it may cause severe respiratory tract irritation with possible burns. If ingested, this product may cause severe digestive tract irritation with possible burns.

FIRE HAZARDS: No known fire hazard.

PHYSICAL HAZARDS: Negligible under typical circumstances of use/anticipated emergency response situations.

ENVIRONMENTAL HAZARDS: This solution can cause harm to aquatic life as it can substantially lower the pH of contaminated bodies of water, especially if large volumes are released into the environment. This product is acidic; it has the potential to severely irritate, burn, or kill contaminated lifeforms.

GLOBALLY HARMONIZED SYSTEM REVIEW:

CLASSIFICATION: Skin Corrosion/Irritation – Category 1B; Acute toxicity/Oral – Category 4

LABELING:

Symbol:

Signal Word: DANGER!

Hazard Statement: Causes severe skin burns and eye damage.

Precautionary Statements: Do not breathe vapors or mists. Wash skin and exposed areas thoroughly after handling. Wear protective clothing, eye protection, and face protection. Do not eat, smoke, or drink when using this product.



2. HAZARD IDENTIFICATION (Continued)



Precautionary Statements (continued): IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of container/content in accordance with local/regional/national and international requirements.

OTHER HAZARDS: Prolonged or repeated skin contact may cause dermatitis. This product contains a small amount of Orthotolidine, a chemical known to the state of California to cause cancer.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	EINECS #	% (w/w)	OTHER
Hydrochloric acid	7647-01-0	231-595-7	<5.0%	NE
Orthotolidine	612-82-8	210-322-5	<0.1%	o-Tolidine dihydrochloride
Water	7732-18-5	231-791-2	>98%	NE
Other ingredients that are below 1.0% in concentration (or below 0.1% in concentration for carcinogens), All ingredients are listed per the requirements of regulations pertinent to SDS preparation.			Balance	NE

4. FIRST AID MEASURES

EYES: Hold contaminated eyes open and flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention immediately.

SKIN: Flush area with warm, running water. Continue rinsing with water for at least 15 minutes. Seek medical attention immediately if irritation, blisters, or other symptoms of corrosive damage appear.

INHALATION: Obtain fresh air. If breathing is difficult, emergency oxygen should be administered. Seek medical attention immediately.

INGESTION: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cups of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Give milk of magnesia.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Depending on route and duration of exposure, pre-existing skin or respiratory conditions are most apt to be aggravated by overexposure to this product.

5. FIRE-FIGHTING MEASURES



NFPA FLAMMABILITY CLASSIFICATION: Not flammable.

RECOMMENDED FIRE EXTINGUISHING MEDIA: Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, Halon, or any other.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

UNUSUAL HAZARDS IN FIRE SITUATIONS: When involved in a fire, this material may produce acrid, acidic vapors and toxic gases (e.g., carbon monoxide, carbon dioxide, chloride compounds). This product is not flammable; but hydrochloric acid reacts with most metals to form flammable hydrogen gas.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Not sensitive.

RECOMMENDATIONS TO FIREFIGHTERS: Wear Self Contained Breathing Apparatus and full protective equipment for fire response. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool. Contaminated equipment should be rinsed thoroughly with water before returning to service; if necessary, use sodium bicarbonate solution to neutralize acid contamination. Contaminated equipment should be rinsed thoroughly with water before returning to service.

6. ACCIDENTAL RELEASE MEASURES

RESPONSE TO INCIDENTAL RELEASES: : Consumer quantities of this product are not considered "spills" for purposes of this section. Personnel who have received basic chemical safety training can generally handle small-scale releases, such as 1 case of this product. Wear gloves and safety glasses when cleaning-up spills. Use caution during clean-up; contaminated floors and items may be slippery.

RESPONSE TO NON-INCIDENTAL RELEASES: Respond to non-incident chemical releases of this product, such as the simultaneous destruction of several pallets, by clearing the impacted area and contacting appropriate emergency personnel.

ENVIRONMENTAL PRECAUTIONS: This product is an acidic solution. Avoid response actions that can cause a release of a significant amount of the substance (e.g., 1 liter or more) into the environment.

RESPONSE PROCEDURES FOR ANY RELEASE: Sponge spilled compound with a damp polypad or other absorbent. If needed, contaminated areas or equipment may be neutralized with dilute alkaline solutions of soda ash (sodium carbonate, Na₂CO₃), or lime (calcium oxide, CaO).

SPILL RESPONSE EQUIPMENT: Polypad or other absorbent material, Neutralizing agent (e.g., sodium carbonate or lime), if needed.

7. HANDLING AND STORAGE

HYGIENE PRACTICES: Keep out of reach of children. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of vapors, mists and sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up any spilled product immediately.

HANDLING RECOMMENDATIONS: Users will dip a vial into pool/spa water, then put several drops of this product into the vial to obtain a color reading. Employees must be appropriately trained to use this product safely as needed.

STORAGE RECOMMENDATIONS: Ensure all containers are correctly labeled. Store container in cool, dry place away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals (See Section 10, Stability and Reactivity).

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures).

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

U.S. NATIONAL EXPOSURE LIMITS:

COMPONENT	ACGIH TLV (ppm)	OSHA PEL (ppm)	NIOSH REL (ppm)	OTHER
Hydrochloric acid (for Hydrogen Chloride)	2 ppm C	5 ppm C	5 ppm C	NE
Orthotolidine	NE	NE	NE	NE

INTERNATIONAL EXPOSURE LIMITS:

COMPONENT	Federal Republic of Germany (DFG) Maximum Concentration Values in the Workplace (MAKs)	OTHER
Hydrochloric acid (for Hydrogen Chloride)	2 ppm C	OEL-AUSTRALIA:TWA; OEL-DENMARK:STEL 5 ppm (7 mg/m ³) OEL-FINLAND:STEL 5 ppm (7 mg/m ³);Skin OEL-FRANCE:STEL 5 ppm; OEL-GERMANY:TWA 5 ppm; OEL-HUNGARY:STEL 5 mg/m ³ ; OEL-JAPAN:STEL 5 ppm ; OEL-THE NETHERLANDS:TWA 5 ppm; OEL-THE PHILIPPINES:TWA 5 ppm; OEL-POLAND:TWA 5 mg/m ³ OEL-RUSSIA:STEL 5 ppm; OEL-SWEDEN:STEL 5 ppm; OEL-SWITZERLAND:TWA 5 ppm, STEL 10 ppm; OEL-THAILAND:TWA 5 ppm; OEL-TURKEY:TWA 5;OEL-UNITED KINGDOM:TWA 5 ppm (7 mg/m ³ ,;STEL 5 ppm (7 mg/m ³))
Orthotolidine	NE	NE

8. EXPOSURE CONTROL AND PERSONAL PROTECTION (Continued)

ENGINEERING CONTROLS: Use this product in well-ventilated environment.

RESPIRATORY PROTECTION: None needed under routine circumstances of use.

HAND PROTECTION: Rubber, latex, or neoprene gloves should be used when prolonged contact is anticipated.

EYE PROTECTION: Splash goggles or safety glasses with side shield are recommended if splashes or sprays are anticipated.

BODY PROTECTION: None needed under typical situations of use or handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid.

COLOR: Clear, colorless.

ODOR: None.

pH: < 2.0

BOILING POINT: Approximately 100°C (212°F).

MELTING POINT: Approximately 0°C (32 °F).

REFRACTIVE INDEX: Not applicable.

VISCOSITY: ≈ 0.890 cP at about 25 °C.

FLASH POINT: Not applicable.

LOWER EXPLOSIVE LIMIT (LEL): Not applicable.

UPPER EXPLOSIVE LIMIT (UEL): Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

VAPOR PRESSURE: ≈17.5 mmHg at 20°C.

VAPOR DENSITY (air = 1): ≈17.3 g/m³ at 20°C.

SPECIFIC GRAVITY (water = 1): Approximately 1.0.

EVAPORATION RATE (water = 1): ≈1.0

COEFFICIENT OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.

SOLUBILITY: 100% Soluble in water.

EXPLOSIVE PROPERTIES: Not applicable.

OXIDIZING PROPERTIES: Not an oxidizer.

10. STABILITY AND REACTIVITY

RELATIVE STABILITY (AT STANDARD TEMPERATURES AND PRESSURES): Normally stable.

INCOMPATIBILITIES: Hydrochloric acid solutions, such as this product, are highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS CHEMICAL DECOMPOSITION PRODUCTS: Not applicable.

CONDITIONS TO AVOID: Avoid contact with incompatible chemicals.

11. TOXICOLOGY INFORMATION

CARCINOGENICITY STATUS: The following table summarizes the carcinogenicity listing for the components of this product. "NO" indicates that the substance is not considered to be, or suspected to be, a carcinogen by the listed agency

CHEMICAL	IARC	NTP	NIOSH	OSHA	OTHER
Hydrochloric acid (for Hydrogen Chloride)	IARC 3; Unclassifiable as Human Carcinogen	NO	NO	NO	A4; Not Classifiable as Human Carcinogen, ACGIH
Orthotolidine	NO	NO	NO	NO	California Proposition 65

REPRODUCTIVE TOXICITY INFORMATION: The components of this product are not reported to cause reproductive effects under typical circumstances of exposure. Laboratory tests of hydrochloric acid show the following teratogenicity data: Embryo or Fetus: Stunted fetus, Inhalation, rat TCL0=450 mg/m³/1H; Specific Developmental Abnormalities: homeostatis, ihl-rat TCL0=450 mg/m³/1H (female 1 days pre-mating).

TOXICOLOGY DATA: The following data are available for components of this product present in greater than 1 percent concentration.

HYDROCHLORIC ACID

Inhalation, mouse: LC50 = 1108 ppm/1 hour;

Inhalation, mouse: LC50 = 8300 mg/m³/30 minutes

Inhalation, rat: LC50 = 3124 ppm/1 hour

Inhalation, rat: LC50 = 45000 mg/m³/ 5 minutes

Inhalation, rat: LC50 = 8300 mg/m³/30 minutes;

Oral, rabbit: LD50 = 900 mg/kg

11. TOXICOLOGY INFORMATION (Continued)

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: None known.

DEGREE OF IRRITATION: Severely irritating to corrosively damaging, depending on the duration of exposure.

SENSITIZATION POTENTIAL: Not applicable.

MUTAGENIC EFFECTS: Not applicable.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Not applicable.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Not applicable.

ASPIRATION HAZARD: Not applicable.

12. ECOLOGICAL INFORMATION

TOXICITY TO TERRESTRIAL LIFE: This solution is an acid. Based on available data, this product may be harmful to contaminated plants or animal, upon exposures to large volumes or of prolonged duration.

TOXICITY TO AQUATIC LIFE: Based on available data, this product may be harmful to contaminated aquatic plants or animals, upon exposures to large volumes. Because this product is an acid, releases of relatively large volumes of this product into the environment can lower the pH and severely impact aquatic life in the adjacent area.

MOBILITY, PERSISTENCE, AND DEGRADABILITY: When released into the soil, the components of this product are not expected to biodegrade. When released into the soil, hydrochloric acid may leach into groundwater.

BIOACCUMULATION AND BIOCONCENTRATION POTENTIAL: It is not anticipated that this product will bioaccumulate or bioconcentrate significantly in the environment.

13. DISPOSAL CONSIDERATIONS

WASTE HANDLING RECOMMENDATIONS: This is a consumer product; follow local regulations regarding household chemical products. Prepare, transport, treat, store, and dispose of waste product according to all applicable local, U.S. State and U.S. Federal regulations, the applicable Canadian standards, or the appropriate standards of the nations of the European Community.

EPA RCRA WASTE CODE: Not applicable (if household waste); otherwise, D002 . (Characteristic, Corrosive).

EUROPEAN WASTE CODE: 20 03 (Other municipal wastes)

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS: This product, as it is normally shipped, meets the definition of Consumer Commodity (49 CFR 171.8).

PROPER SHIPPING NAME: Consumer Commodity.

HAZARD CLASSIFICATION: ORM-D.

UN/NA IDENTIFICATION NUMBER: Not applicable.

PACKING GROUP: Not applicable.

LABEL: Not applicable.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK (2008): Not applicable.

MARINE POLLUTANT STATUS: No component is designated as a DOT Marine Pollutant.

CANADIAN TRANSPORTATION INFORMATION: This product is regulated by Transport Canada as dangerous goods under Canadian transportation standards; use the information above for Canadian Shipments.

IATA DESIGNATION: This product, as it is normally shipped, meets the definition of Consumer Commodity (DGR Appendix A and Special Provision A112).

PROPER SHIPPING NAME: Consumer Commodity.

HAZARD CLASSIFICATION: 9

UN/NA IDENTIFICATION NUMBER: ID8000

PACKING GROUP: Not applicable.

LABEL: Miscellaneous

15. REGULATORY INFORMATION

OTHER IMPORTANT U.S. REGULATIONS

CERCLA REPORTING REQUIREMENTS: Hydrochloric Acid - 5000 lb/2270 kg RQ.

SARA REPORTING REQUIREMENTS: The following reporting requirements are applicable to the components of this product:

CHEMICAL	SECTION 302 (40 CFR 355 Appendix A)	SECTION 304 (40 CFR Table 302.4)	SECTION 313 (40 CFR 372.65)
Hydrochloric acid (for Hydrogen Chloride)	500 lb TPQ (Hydrogen Chloride, gas only)	5000 lb/2270 kg RQ.	Hydrochloric acid – aerosol mist only.

SARA SECTION 311/312 FOR PRODUCT: Acute Health Hazard; chronic health hazard; corrosive hazard.

CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS: This product contains a trace amount of o-Toluidine hydrochloride, a chemical known to the state of California to cause cancer.

INTERNATIONAL REGULATIONS

CANADIAN DSL/NDSL INVENTORY STATUS: The listed components of this product are on the DSL/NDSL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components of this product are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS CLASSIFICATION: WHMIS Classifications applicable to this product - E (Corrosive Material)

16. OTHER INFORMATION

DATE/ SDS PREPARATION: June 10, 2015

SUPERCEDES: Nov. 22, 2010

DEFINITION OF TERMS AND ABBREVIATIONS

ALL SECTIONS: **OSHA:** U.S. Federal Occupational Safety and Health Administration. **WHMIS:** Canadian Workplace Hazardous Materials Standard. **GHS:** Globally Harmonized System of Classification of Chemical Substances.

SECTION 2: **CAS Number:** Chemical Abstract Service Number, which is used by the American chemical society to uniquely identify a chemical. **EINECS:** European Inventory of Existing Commercial Substances.

SECTION 3: **HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING:** This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 5: **NFPA:** National Fire Protection Association. **NFPA FLAMMABILITY CLASSIFICATION:** The NFPA uses the flash point (F.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: F.P. below 73°F and BP below 100°F. Class IB: F.P. below 73°F and BP at or above 100°F. Class IC: F.P. at or above 73°F and BP at or above 100°F. Class II: F.P. at or above 100°F and below 140°F. Class IIIA: F.P. at or above 140°F and below 200°F. Class IIIB: F.P. at or above 200°F. **NFPA HAZARDOUS MATERIALS RATING:** This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 8: **NE:** Not established. **ACGIH:** American Conference of Government Industrial Hygienists; **TWA:** Time-Weighted Average (over an 8-hour work day); **STEL:** Short-Term Exposure Limit (15 minute average, no more than 4-times daily and each exposure separated by one-hour minimally); **C:** Ceiling Limit (concentration not to be exceeded in a work environment). **PEL:** Permissible Exposure Limit. **NIOSH:** National Institute of Occupational Safety and Health; **REL:** Recommended Exposure Limit; **IDLH:** Immediately Dangerous to Life and Health Concentrations. *Note:* In July 1992, a court ruling vacated the more protective PELs set by OSHA in 1989. Because OSHA may enforce the more protective levels under the "general duty clause", both the current and vacated levels are presented in this document. **ppm:** Parts per Million. **mg/m³:** Milligrams per cubic meter. **mppt:** Millions of Particles per Cubic Foot. **BEI:** Biological Exposure Limit. **EL:** Exposure Limit (United Kingdom). Federal Republic of Germany (**DFG**) Maximum Concentration Values in the Workplace (**MAKs**)

SECTION 9: **pH:** Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. **FLASH POINT:** Temperature at which a liquid generates enough flammable vapors so that ignition may occur. **AUTOIGNITION TEMPERATURE:** Temperature at which spontaneous ignition occurs. **LOWER EXPLOSIVE LIMIT (LEL):** The minimal concentration of flammable vapors in air which will sustain ignition. **UPPER EXPLOSIVE LIMIT (UEL):** The maximum concentration of flammable vapors in air which will sustain ignition. ≈: Approximately symbol.

SECTION 11: **CARCINOGENICITY STATUS:** NTP: National Toxicology Program. IARC: International Agency for Research on Cancer. **REPRODUCTIVE TOXICITY INFORMATION:** Mutagen: Substance capable of causing chromosomal damage to cells. Embryotoxin: Substance capable of damaging the developing embryo in an overexposed female. Teratogen: Substance capable of damaging the developing fetus in an overexposed female. Reproductive toxin: Substance capable of adversely affecting male or female reproductive organs or functions. **TOXICOLOGY DATA:** LD_{xx} or LC_{xx}: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to access the toxicity of chemical substances to humans. TD_{xx} or TC_{xx}: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.

SECTION 13: **RCRA:** Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. **EPA RCRA Waste Codes:** Defined in 40 CFR Section 261.

SECTION 15: **CERCLA:** Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and SARA: (Superfund Amendment and Reauthorization Act). The regulations promulgated under this Act are located under 40 CFR 300 ff. and provide "community right-to-know" requirements. **DSL/NDSL:** Canadian Domestic Substances and Non-Domestic Substances Lists.