



SAFETY DATA SHEET

Product name Oreq Test Solution #1 OTO

Revision date 5-20-15

Section 1 Identification

Product ID: Test Solution #1 OTO
Chemical Name: Ortho-tolidine Solution Reagent
Synonyms: Ortho-tolidine Solution Reagent, OTO
Chemical Formula: Not Available
CAS Number: Not Available
Product Use: For Chlorine Test in Swimming Pools/Spas

Supplier: Oreq Corporation
42306 Remington Avenue
Temecula, CA 92590
951-296-5076

Emergency Phone# Chemtrec: 1-800-424-9300

Section 2 Hazards identification

EMERGENCY OVERVIEW

DANGER



Appearance – Clear, colorless

Physical State – Liquid

Odor - Pungent

GHS Classification

Skin Corrosion/irritation: (Category 1) Serious eye damage/eye irritation (Category 1)
Carcinogenicity (Category 1B)

Hazard Statement(s)

H314: Causes severe skin burns and eye damage.
H350: May cause Cancer

Precautionary Statement(s)

Prevention

P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing.
Rinse skin with water/shower.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing



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Section 2 Hazards identification (Continued)

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+P311: IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

P363: Wash contaminated clothing before re-use.

Potential Health Effects

Primary routes of entry are by way of eye, skin and inhalation.

Potential Health Effects: Eyes

Severe irritation of the eyes and eyelids. If the acid is not quickly removed by thorough irrigation with water, there may be prolonged or permanent visual impairment or total loss of sight. Hydrogen chloride gas escaping from the aqueous solution is immediately irritating to the eyes.

Potential Health Effects: Skin

Irritating and corrosive to skin and can cause severe burns if not properly washed off. Repeated contact of the skin may lead to the development of dermatitis. The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis.

Potential Health Effects: Ingestion

This product causes severe burns of mucus membranes of the mouth, esophagus, and stomach if swallowed.

Potential Health Effects: Inhalation

Inhalation of gas, mist, fog, or spray will cause severe irritation of the upper respiratory tract, resulting in coughing, burning of the throat, and a choking sensation. Excessive or long-term exposure may result in varying degrees of irritation or damage to the respiratory tract tissues and increased susceptibility to respiratory illness, including pulmonary edema. Prolonged or repeated exposure to concentration in excess of the TLV may cause discoloration and/or erosion of the teeth.

HMIS Ratings: **Health: 3** **Fire: 0** **Physical Hazard: 0**
NFPA Ratings: **Health: 3** **Fire: 0** **Reactivity: 0**

Section 3 Composition / Information on ingredients

COMPONENT	CAS#	PERCENT
Hydrochloric Acid	7647-01-0	15%
Water	7232-18-5	85%
Ortho-tolidine (3,3'-Dimethylbenzidine)	119-93-7	Less than 0.1%

Ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. Materials determined to be health hazards are listed if they comprise 1% or more of the composition. Materials identified as carcinogens are listed if they comprise 0.1% or more of the composition. Information on proprietary materials is available in 29CFR 1910.1200(i)(1).



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Section 4 First - aid measures

General advice	Do not get in eyes, on skin, or on clothing.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Call a physician immediately. Drink plenty of water. Never give anything by mouth to an unconscious person.

Section 5 Fire - fighting measures

Extinguishing Media

Suitable Extinguishing Media:

Carbon dioxide, dry chemical and foam may all be used in areas where hydrogen chloride is stored.

Unsuitable Extinguishing Media:

Do not use water.

Fire Fighting Equipment/Instructions:

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Section 6 Accidental release measures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment. Refer to Section 8. Do not touch damaged packages or spilled material. Avoid contact with skin, eyes, and inhalation of vapors.
Environmental precautions	See Section 12 for additional Ecological Information.
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.

Section 7 Handling and storage

Precautions for safe handling

Do not let skin or clothes come into contact with test kit solution.

Caps must always be used.

Do not cover the test kit vials with fingers during use.

Do not dispose of test samples in pool or spa.



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Section 7 Handling and storage (Continued)

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.

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. To maintain product quality, do not store in heat or direct sunlight. Do not store in metal containers. Keep out of the reach of children.

Incompatible Products Strong bases. Metals. Reducing agents. Oxidizing agents.

Section 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 ³)	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³
Water 7732-18-5	-	-	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	-	-	None Established

Appropriate engineering controls

Engineering Measures

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eyeface 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.

Section 9 Physical and chemical properties

pH

Melting point/freezing point

No information available

Boiling Point/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



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Section 9 Physical and chemical properties (Continued)

Specific gravity	No information available
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
Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

Section 10 Stability and reactivity

Stability	Stable under normal conditions of use and storage.
Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat. Incompatible products. Direct sunlight.
Incompatible materials	Strong bases. Metals. Reducing agents. Oxidizing agents.
Hazardous decomposition products	Chlorine gas. Hydrogen chloride. Thermal decomposition can lead to release of toxic/corrosive gases and vapors.

Section 11 Toxicological information

Information on likely routes of exposure

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrochloric Acid 7647-01-0	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h
Water 7732-18-5	> 90 mL/kg (Rat)	None Established	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	None Established	None Established	None Established



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Section 11 Toxicological information (Continued)

Information on toxicological effects

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrochloric Acid 7647-01-0	-	Group 3	None Established	-
Water 7732-18-5	-	None Established	None Established	-
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	-	None Established	None Established	-

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (dermal) 97471 mg/kg

ATEmix (inhalation-dust/mist) 9.8 mg/l

Section 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
Water 7732-18-5	None Established	None Established	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	None Established	None Established	None Established

Persistence and degradability No information available.

Bioaccumulation/Accumulation No information available.

Section 13 Disposal considerations

Waste Disposal Method Do not dispose of test samples in pool or spa.

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

Contaminated packaging Do not re-use empty containers.



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Section 14 Transport information

DOT

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



IATA

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

IMDG/IMO

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

Section 15 Regulatory information

International Inventories

TSCA	Complies	IECSC	Complies
DSL/NDL	Complies	KECL	Complies
EINECS/ELINCS	Complies	PICCS	Complies
ENCS	Complies	AICS	Complies

U.S. 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 CAS# 7647-01-0	1.0
Water CAS# 7732-18-5	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine)CAS# 119-93-7	0.1



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Section 15 Regulatory information (Continued)

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

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
Water CAS# 7732-18-5	None Established	None Established	None Established	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine)CAS# 119-93-7	None Established	None Established	None Established	None Established

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
Water 7732-18-5	-	None Established	-
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	-	None Established	-

U.S. State Regulations

California Proposition 65

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

Chemical Name	SARA 313 – Threshold Values %
Hydrochloric Acid 7647-01-0	None Established
Water 7732-18-5	None Established
Ortho-tolidine (3,3'-Dimethylbenzidine) 119-93-7	Carcinogen



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Section 15 Regulatory information (Continued)

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrochloric Acid 7647-01-0	X	X	X
Water 7732-18-5	None Established	None Established	X
Ortho-tolidine (3,3'-Dimethylbenzidine)119-93-7	X	None Established	None Established

Section 16 Other information

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

HMIS Health hazard 3 Flammability 0 Physical hazards 0 Personal precautions B

DATE OF PREPARATION

5-20-15

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