

# SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II  
(COMMISSION REGULATION (EU) No 453/2010)

Version 1  
Product Name SWIMMING POOL TEST KIT- OTO SOLUTION

Issue Date 22-Apr-2014  
Revision date 22-Apr-2014

## SECTION 1: Identification of the substance /mixture and of the company/undertaking

### 1.1. Product identifier

Product Name SWIMMING POOL TEST KIT- OTO SOLUTION  
REACH registration number No information available

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Test free chlorine  
Uses advised against No information available

### 1.3. Details of the supplier of the safety data sheet

Supplier NINGBO THAILE CHEMICAL TECHNOLOGY CO., LTD.  
Address Room 503, SongXia Economic And Trade Building, Cangsong Road 43#, Haishu District, Ningbo, Zhejiang Province, China.  
Postal Code 315012  
Phone +86-574-87496391  
FAX +86-574-56700577  
E-mail 29976613@qq.com

### 1.4. Emergency telephone number

+86-574-87496391

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]  
Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC  
Not classified

### 2.2. Label elements

Symbols/Pictograms None  
Signal word None  
Hazard Statements Not applicable  
Precautionary Statements Not applicable

### 2.3. Other hazards

No information available

## SECTION 3: Composition/information on ingredients

### 3.1 Mixture

Chemical Name	EC No	CAS No	Weight-%	Classification according to Directive 67/548/EEC or 1999/45/EC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Water ,distilled, conductivity or of similar purity	231-791-2	7732-18-5	≥98.9	Not classified	Not classified
Hydrogen chloride	231-595-7	7647-01-0	<1	T; R23 C; R35	Acute Tox. 3 (H331) Skin Corr. 1A (H314) Press. Gas

4,4'-bi-o-toluidine	204-358-0	119-93-7	<0.1	Xn; R22 Carc.Cat.2; R45 N; R51-53	Acute Tox. 4 (H302) Carc. 1B (H350) Aquatic Chronic 2 (H411)
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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General advice

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

#### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

#### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. .

### 4.2. Most important symptoms and effects, both acute and delayed

No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### Unsuitable extinguishing media

No information available

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors: carbon oxides, nitric oxides, chloride ,etc

### 5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

Wear protective equipment. Keep unprotected persons away.

Remove all sources of ignition.

Avoid contact with skin, eyes and inhalation of vapors

Use personal protection recommended in Section 8

### 6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained  
Prevent entry into waterways, sewers, basements or confined areas

### 6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13)

### 6.4. Reference to other sections

See Section 7 for more information  
See section 8 for more information  
See section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice  
Ensure adequate ventilation, especially in confined areas  
Prevent formation of aerosols.  
Avoid contact with skin, eyes or clothing  
Wash contaminated clothing before reuse  
Do not breathe dust/fume/gas/mist/vapors/spray  
Do not eat, drink or smoke when using this product  
Wash thoroughly after handling  
Use personal protection recommended in Section 8

### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place  
Store only in the original receptacle.  
Keep away from heat  
Protect from sunlight  
Do not store together with alkalis (caustic solutions).  
Store away from oxidizing agents.  
Store away from metals.  
Do not store together with textiles.  
Keep locked up and out of reach of children  
Keep away from food, drink and animal feeding stuffs  
Store in accordance with local regulations

### 7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Hydrogen chloride 7647-01-0	5 ppm Peak 7.5 mg/m <sup>3</sup> Peak	STEL 10 ppm STEL 15 mg/m <sup>3</sup> TWA: 5 ppm TWA: 8 mg/m <sup>3</sup>	-	Ceiling: 5 ppm Ceiling: 8 mg/m <sup>3</sup>	TWA 5 ppm TWA 8 mg/m <sup>3</sup> STEL 10 ppm STEL 15 mg/m <sup>3</sup>
4,4'-bi-o-toluidine 119-93-7	Skin	Skin	-	-	-

Chemical Name	Latvia	France	Finland	Germany	Italy
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Hydrogen chloride 7647-01-0	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup>	STEL: 5 ppm STEL: 7.6 mg/m <sup>3</sup>	STEL: 5 ppm STEL: 7.6 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3.0 mg/m <sup>3</sup> Ceiling / Peak: 4 ppm Ceiling / Peak: 6 mg/m <sup>3</sup>  TWA: 3 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 8 mg/m <sup>3</sup> STEL: 10 ppm STEL: 15 mg/m <sup>3</sup>
4,4'-bi-o-toluidine 119-93-7		-	-	Skin	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Hydrogen chloride 7647-01-0	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	Ceiling: 2 ppm	STEL: 10 ppm STEL: 15 mg/m <sup>3</sup> TWA: 5 ppm TWA: 7.6 mg/m <sup>3</sup>	STEL: 4 ppm STEL: 6 mg/m <sup>3</sup> TWA: 2 ppm TWA: 3.0 mg/m <sup>3</sup>	STEL: 15 mg/m <sup>3</sup> TWA: 8 mg/m <sup>3</sup>
4,4'-bi-o-toluidine 119-93-7	-	-	-	TWA: 0.003 ppm TWA: 0.03 mg/m <sup>3</sup>	-

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen chloride 7647-01-0	Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	STEL: 5 ppm STEL: 8 mg/m <sup>3</sup> TWA: 1 ppm TWA: 2 mg/m <sup>3</sup>	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m <sup>3</sup> Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m <sup>3</sup>
4,4'-bi-o-toluidine 119-93-7	-	-	S*	-	Ceiling: 0.02 mg/m <sup>3</sup> 60 min

7647-01-0 Hydrogen chloride

IOELV (EU)

WEL (Great Britain)

PEL (America)

REL (America)

TLV (America)

119-93-7 4,4'-bi-o-toluidine

REL (America)

TLV (America)

Short-term value: 15 mg/m<sup>3</sup>, 10 ppm  
Long-term value: 8 mg/m<sup>3</sup>, 5 ppm  
Short-term value: 8 mg/m<sup>3</sup>, 5 ppm  
Long-term value: 2 mg/m<sup>3</sup>, 1 ppm  
(gas and aerosol mists)  
Short-term value: C 7 mg/m<sup>3</sup>, C 5 ppm  
Short-term value: C 7 mg/m<sup>3</sup>, C 5 ppm  
Short-term value: C 2,98 mg/m<sup>3</sup>, C 2 ppm

Short-term value: C 0,02\* mg/m<sup>3</sup>  
\*60-min; Skin  
Skin; L

**Derived No Effect Level (DNEL)**

No information available.

**Predicted No Effect Concentration (PNEC)**

No information available.

**8.2. Exposure controls****Engineering Controls**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

Eye/face protection

Wear safety glasses with side shields (or goggles)

Hand Protection

Wear protective gloves when handling

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

*Material of gloves:*

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

*Penetration time of glove material:*

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Skin and body protection

Suitable protective clothing

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment

**Environmental exposure controls**

Do not allow into any sewer, on the ground or into any body of water

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	Liquid
Color	Transparent
Odor	Odorless
Odor Threshold	No information available
pH	2.2
Melting point/freezing point	-10 °C
Boiling point / boiling range	Hydrogen chloride: -85 °C
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	No information available
Vapor Pressure	14mbr
Vapor density	No information available
Density	Water, distilled, conductivity or of similar purity: 1.0000 g/cm <sup>3</sup>
Relative density	No information available
Bulk density	No information available
Specific gravity	No information available
Water solubility	Product is water solution
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	Hydrogen chloride: 0.0000017 other: m <sup>2</sup> /s z at 20 °C
Dynamic viscosity	No information available
Explosive properties	Product does not present an explosion hazard.
Oxidizing properties	No information available

**9.2. Other information**

No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No information available.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

None under normal processing.

**10.4. Conditions to avoid**

Strong heating and incompatible material

**10.5. Incompatible materials**

Bases. Amines. Alkali metals. Metals. Oxidizing agents.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to carbon oxides, nitric oxides, chloride ,etc

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen chloride	= 900 mg/kg (Rabbit )	> 5010 mg/kg ( Rabbit )	= 3124 ppm ( Rat ) 1 h

**Skin corrosion/irritation**

No information available.

**Serious eye damage/eye irritation**

No information available.

**Sensitization**

No information available.

**Germ cell mutagenicity**

No information available.

**Carcinogenicity**

Chemical Name	European Union	IARC
Hydrogen chloride	-	Group 3
4,4'-bi-o-toluidine	Carc. 1B	Group 2B

**Reproductive toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Hydrogen chloride	-	282: 96 h Gambusia affinis mg/L LC50 static	-

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

#### 12.4. Mobility in soil

No information available

#### 12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

#### 12.6. Other adverse effects

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste from residues/unused products Disposal should be in accordance with applicable regional, national and local laws and regulations  
Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal.

### SECTION 14: Transport information

14.1 UN Number	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing Group	Not regulated
14.5 Environmental hazards	Not marine pollutant
14.6 Special precautions	No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

#### International Inventories

Component	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Water, distilled, cond uctivity or of similar purity 7732-18-5	X	X	X	-	X	X	X	X
Hydrogen chloride 7647-01-0	X	X	X	X	X	X	X	X
4,4'-bi-o-toluidine 119-93-7	X	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

## 15.2. Chemical safety assessment

No information available

## SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

<b>Issue Date</b>	22-Apr-2014
<b>Revision date</b>	22-Apr-2014
<b>Revision Note</b>	Not applicable

### Key or legend to abbreviations and acronyms used in the safety data sheet

**TWA** - TWA (time-weighted average)

**STEL** - STEL (Short Term Exposure Limit)

**Ceiling** - Maximum limit value

**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

### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H350 - May cause cancer if swallowed

H411 - Toxic to aquatic life with long lasting effects

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage.

### Full text of R-phrases referred to under sections 2 and 3

R35 - Causes severe burns

R23 - Toxic by inhalation

R45 - May cause cancer

R22 - Harmful if swallowed

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

### Disclaimer

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----