Printing date 08.01.2016

Revision: 08.01.2016

1 Identification of the substance/preparation and of the company/undertaking

- · Product details: Chlorine Test Solution
- · Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)
- · Registration number Not available
- Application of the substance / the preparation testing the Ej trqtkpg'Ngxgnof water
- Manufacturer/Supplier: U.S. Pool Supply (dba - TCP Global Corporation)
 6695 Rasha St, San Diego, CA. 92121
 TEL:858-909-2110
- Further information obtainable from: TCP Global Corporation
- Information in case of emergency: TCP Global Corporation - 858-909-2110 CHEMTREC 1-800-424-9300
- · Email: support@tcpglobal.com

2 Hazards identification

- · Hazard description: Not applicable.
- Information concerning particular hazards for human and environment: The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- · Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredient

· Chemical characterization

· Description:

Mixture of substances listed below with nonhazardous additions. For the wording of the listed risk phrases refer to section 16.

| • Dangerous components: | | | |
|----------------------------|------------------------------|---------------------------------------|-------|
| CAS: 7647-01-0 | hydrogen chloride | 🛃 C, 🗙 Xi; R 34-37 | 3,7% |
| EINECS: 231-595-7 | | | |
| EU Number: 017-002-01-X | | | |
| CAS: 612-82-8 | salts of 4,4'-bi-o-toluidine | Carc. Cat. 2; 💂 T, 🌄 N; R 45-22-51/53 | 0,09% |
| EINECS: 210-322-5 | | | |
| EU Number: 612-081-00-5 | | | |
| · Non-dangerous component· | | | |

· Non-dangerous component:

CAS: 7732-18-5 water, distilled, conductivity or of similar purity EINECS: 231-791-2

· Remark:

salts of 4,4'-bi-o-toluidine (CAS No. 612-82-8) Synonym: O-Tolidine Dihydrochloride

4 First aid measures

· General information: No special measures required.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

(Contd. on page 2)

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96,21%

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Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)

(Contd. of page 1)

5 *Fire-fighting measures*

• Suitable extinguishing agents:

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

• Protective equipment:

Wear fully protective suit. Mouth respiratory protective device.

6 Accidental release measures

· Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.
 Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

• Additional information: No dangerous substances are released.

7 Handling and storage

· Handling:

- · Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
- · Information about fire and explosion protection: Keep respiratory protective device available.
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:

| 7647-01-0 | hydrogen | chloride |
|-----------|-------------|--|
| IOELV (EU | IJ) | Short-term value: 15 mg/m ³ , 10 ppm |
| | | Long-term value: 8 mg/m ³ , 5 ppm |
| WEL (Gree | at Britain) | Short-term value: 8 mg/m ³ , 5 ppm |
| | | Long-term value: 2 mg/m ³ , 1 ppm |
| | | (gas and aerosol mists) |
| PEL (USA) |) | Short-term value: C 7 mg/m ³ , C 5 ppm |
| REL (USA) |) | Short-term value: C 7 mg/m ³ , C 5 ppm |
| TLV (USA) |) | Short-term value: C 2,98 mg/m ³ , C 2 ppm |

· DNELs Not available

• PNECs Not available

• Additional information: The lists valid during the making were used as basis.

- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

· Respiratory protection: Not necessary if room is well-ventilated.

• Protection of hands:

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. (Contd. on page 3)

Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)

· Penetration time of glove material

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

· Eye protection: Goggles recommended during refilling

| General Information | | |
|---------------------------------------|---|--|
| Form: | Liquid | |
| Colour: | Light yellow | |
| Odour: | Pungent | |
| Change in condition | | |
| Melting point/Melting range: | Not available | |
| Boiling point/Boiling range: | 100°C | |
| Flash point: | Not available | |
| Flammability (solid, gaseous): | Not available | |
| Ignition temperature: | Not available | |
| Self-igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | Not available | |
| Upper: | Not available | |
| Oxidizing properties | Not available | |
| Vapour pressure: | Not available | |
| Density: | Not available | |
| Relative density | Not available | |
| Vapour density | Not available | |
| Evaporation rate | Not available | |
| Solubility in / Miscibility with | | |
| water: | Easily soluble. | |
| pH-value: | Strongly acidic | |
| Segregation coefficient (n-octanol/wo | ater): Not available | |
| Viscosity: | | |
| Dynamic: | Not available | |

10 Stability and reactivity

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Dangerous reactions No dangerous reactions known.

• Dangerous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· Acute toxicity:

· LD/LC50 values relevant for classification:

7647-01-0 hydrogen chloride

Oral LD50 900 mg/kg (rabbit)

· Primary irritant effect:

• on the skin: Irritating effect possible

(Contd. on page 4)

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(Contd. of page 3)

Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)

- on the eye: Irritating effect possible
- · Sensitization: Sensitization possible.
- · Additional toxicological information:
- The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
- When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Toxicokinetics, metabolism and distribution Not available
- · Acute effects (acute toxicity, irritation and corrosivity) Not available
- · Repeated dose toxicity Not available
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) Not available

12 Ecological information

- Information about elimination (persistence and degradability): Not available
- · Behaviour in environmental systems:
- · Mobility and bioaccumulation potential: Not available
- · Ecotoxical effects:
- · Acquatic toxicity: Not available
- · General notes:
- 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.
- · PBT assessments Not available

13 Disposal considerations

- · Product:
- · Recommendation Smaller quantities can be disposed of with household waste.
- · Uncleaned packaging:
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· Land transport ADR/RID (cross-border)



· ADR/RID class: 8 Corrosive substances.

8

- · Danger code (Kemler): 80
- · UN-Number: 1760 Ш
- · Packaging group:
- · Hazard label:
- Description of goods: 1760 CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID)
- · Limited quantities (LQ) LQ7 3
- · Transport category
- \cdot Tunnel restriction code E

· Maritime transport IMDG:



· IMDG Class: 8 · UN Number: 1760

(Contd. on page 5)

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Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)

| Label Packaging group: EMS Number: Marine pollutant: Proper shipping name Air transport ICAO-T | (Contd. of p 8 III F-A,S-B No | age 4 |
|---|---|-------|
| Packaging group: EMS Number: Marine pollutant: Proper shipping name | III F-A,S-B | |
| EMS Number: Marine pollutant: Proper shipping name | F-A,S-B | |
| Marine pollutant: Proper shipping name | | |
| Proper shipping name | 110 | |
| | : CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID) | |
| | | |
| | | |
| ICAO/IATA Class: UN/ID Number: | 8 1760 | |
| Label | 8 | |
| Packaging group: | | |
| | e: CORROSIVE LIQUID, N.O.S. (HYDROCHLORIC ACID) | |
| | | |
| | | |
| Regulatory inform | ation | |
| | | |
| Sara | | |
| , , | v hazardous substances): | |
| 7647-01-0 hydrogen c | chloride | |
| Section 313(Specific t | oxic chemical listings): | |
| 7647-01-0 hydrogen o | chloride | |
| 612-82-8 salts of 4,4 | | |
| ÷ | | |
| TSCA(Toxic Substanc | | |
| All ingredients are list | еа. | |
| Proposition 65 | | |
| Chemicals known to c | | |
| 612-82-8 salts of 4,4'- | -bi-o-toluidine | |
| Chemicals known to c | ause reproductive toxicity for females: | |
| None of the ingredient | | |
| | ause reproductive toxicity for males: | |
| None of the ingredient | | |
| | ause developmental toxicity: | |
| None of the ingredient | · · | |
| Cancerogenity categor | | |
| EPA(Environmental I | | |
| None of the ingredient | | |
| | | |
| | gency for Research on Cancer) | |
| 7647-01-0 hydrogen c | chloride | 3 |
| NTP(National Toxico | logy Program) | |
| None of the ingredient | | |
| | | |
| | Value established by ACGIH) | |

• NIOSH-Ca(National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca(Occupational Safety & Health Administration)

None of the ingredients is listed.

(Contd. on page 6)

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Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (Chlorine Solution)

• Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

• Special labelling of certain preparations: Safety data sheet available for professional user on request.

16 Other information

· Relevant R-phrases

- 22 Harmful if swallowed.
- 34 Causes burns.
- 37 Irritating to respiratory system.
- 45 May cause cancer.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

DISCLAIMER OF LIABILITY

The information in this MSDS/SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.

EU

(Contd. of page $\overline{5}$)

Page 1/5

Revision: 08.01.2016

1 Identification of the substance/preparation and of the company/undertaking

- · Product details: PH Test Solution
- · Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (PH Test Solution)
- · Registration number Not available
- Application of the substance / the preparation testing PH of water
- · Manufacturer/Supplier:

U.S. Pool Supply (dba - TCP Global Corporation) 6695 Rasha St, San Diego, CA. 92121 TEL: 858-909-2110

- · Further information obtainable from: TCP Global Corporation
- · Information in case of emergency:

TCP Global Corporation - 858-909-2110 CHEMTREC 1-800-424-9300

• Email: support@tcpglobal.com

2 Hazards identification

· Hazard description: Not applicable.

· Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

• Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on

· Chemical characterization

· Description:

Mixture of substances listed below with nonhazardous additions. For the wording of the listed risk phrases refer to section 16.

· Dangerous components: Not applicable

· Non-dangerous component:

| 8 | | |
|---------------------|--|-------|
| CAS: 7732-18-5 | water, distilled, conductivity or of similar purity | 99,7% |
| EINECS: 231-791-2 | | |
| CAC. 24497 61 1 | and in the data and All (2012) 1 have an alticle 2 and data (him have being a first of the state | 0.201 |
| CAS: 34487-61-1 | sodium hydrogen 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bisphenolate S,S-dioxide | 0,3% |
| EINECS: 252-057-8 | | |
| D 1 | | |

· Remark:

sodium hydrogen 4,4'-(3H-2,1-benzoxathiol-3-ylidene)bisphenolate S,S-dioxide (CAS No. 34487-61-1) Synonym: phenol red

4 First aid measures

• General information: No special measures required.

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.

5 Fire-fighting measures

· Suitable extinguishing agents:

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

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(Contd. of page 1)

Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (PH Test Solution)

• Protective equipment: Wear fully protective suit.

6 Accidental release measures

- · Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection: No special measures required.
- · Measures for cleaning/collecting:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- · Additional information: No dangerous substances are released.

7 Handling and storage

· Handling:

- · Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
- Information about fire and explosion protection: Keep respiratory protective device available.
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Store away from oxidizing agents.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- DNELs Not available
- · PNECs Not available
- Additional information: The lists valid during the making were used as basis.
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures are to be adhered to when handling chemicals.
- Respiratory protection: Not necessary if room is well-ventilated.
- Protection of hands:
- 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection: Goggles recommended during refilling

| General Information | | |
|---------------------|--------|--|
| Form: | Liquid | |
| Colour: | Red | |

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Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (PH Test Solution)

| | (Conte | d. of page |
|--------------------------------------|---|------------|
| Odour: | Odourless | |
| Change in condition | | |
| Melting point/Melting range: | Not available | |
| Boiling point/Boiling range: | 100°C | |
| Flash point: | Not available | |
| Flammability (solid, gaseous): | Not available | |
| Ignition temperature: | Not available | |
| Self-igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Explosion limits: | | |
| Lower: | Not available | |
| Upper: | Not available | |
| Oxidizing properties | Not available | |
| Vapour pressure: | Not available | |
| Density: | Not available | |
| Relative density | Not available | |
| Vapour density | Not available | |
| Evaporation rate | Not available | |
| Solubility in / Miscibility with | | |
| water: | Easily soluble. | |
| pH-value: | 8,3 | |
| Segregation coefficient (n-octanol/w | ater): Not available | |
| Viscosity: | | |
| Dynamic: | Not available | |

10 Stability and reactivity

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- \cdot **Dangerous reactions** No dangerous reactions known.
- · Dangerous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
- on the skin: Irritating effect possible
- on the eye: Irritating effect possible
- · Sensitization: Sensitization possible.
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

- Toxicokinetics, metabolism and distribution Not available
- · Acute effects (acute toxicity, irritation and corrosivity) Not available
- · Repeated dose toxicity Not available

 $\cdot \textit{CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)} \textit{ Not available }$

(Contd. on page 4)

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Revision: 08.01.2016

Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (PH Test Solution)

(Contd. of page 3)

12 Ecological information

- · Information about elimination (persistence and degradability): Not available
- · Behaviour in environmental systems:
- · Mobility and bioaccumulation potential: Not available
- · Ecotoxical effects:
- · Acquatic toxicity: Not available
- · General notes: Generally not hazardous for water
- · PBT assessments Not available

13 Disposal considerations

- · Product:
- · Recommendation Smaller quantities can be disposed of with household waste.
- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

| I and transport ADP/DI | D (aross border) |
|---|------------------|
| Land transport ADR/RI ADR/RID class: | D (cross-border) |
| · Danger code (Kemler): | - |
| · UN-Number: | - |
| · Hazard label: | - |
| | - |
| • Description of goods: | - |
| Limited quantities (LQ) | - |
| · Transport category | - |
| • Tunnel restriction code | - |
| · Maritime transport IMI | DG: |
| · IMDG Class: | - |
| · UN Number: | - |
| · Label | - |
| • Packaging group: | - |
| · EMS Number: | - |
| • Marine pollutant: | No |
| · Proper shipping name: | - |
| · Air transport ICAO-TI | und IATA-DGR: |
| · ICAO/IATA Class: | - |
| · UN/ID Number: | - |
| · Label | - |
| · Packaging group: | _ |
| · Proper shipping name: | - |

15 Regulatory information

| · | Sara |
|---|------|
| | |

· Section 355(extremely hazardous substances):

None of the ingredients is listed.

• Section 313(Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA(Toxic Substances Control Act):

All ingredients are listed.

(Contd. on page 5)

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Trade name: Standard 3-Way Swimming Pool & Spa Test Kit (PH Test Solution)

| (Conto | l. of page 4) |
|---|---------------|
| · Proposition 65 | |
| · Chemicals known to cause cancer: | |
| None of the ingredients is listed. | |
| · Chemicals known to cause reproductive toxicity for females: | |
| None of the ingredients is listed. | |
| · Chemicals known to cause reproductive toxicity for males: | |
| None of the ingredients is listed. | |
| · Chemicals known to cause developmental toxicity: | |
| None of the ingredients is listed. | |
| · Cancerogenity categories | |
| · EPA(Environmental Protection Agency) | |
| None of the ingredients is listed. | |
| · IARC(International Agency for Research on Cancer) | |
| None of the ingredients is listed. | |
| · NTP(National Toxicology Program) | |
| None of the ingredients is listed. | |
| · TLV(Threshold Limit Value established by ACGIH) | |
| None of the ingredients is listed. | |
| · NIOSH-Ca(National Institute for Occupational Safety and Health) | |
| None of the ingredients is listed. | |
| · OSHA-Ca(Occupational Safety & Health Administration) | |
| None of the ingredients is listed. | |
| • Labelling according to EU guidelines: Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under EU Directives and the Ordinance on H | lazardous |

Materials (German GefStoffV).

16 Other information

DISCLAIMER OF LIABILITY

The information in this MSDS/SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.

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