

SAFETY DATA SHEET

1. Identification

| | | |
|---------------------------------------------------------------|----------------------------------------------------------------|----------------|
| Product identifier | T-Chlor | |
| Other means of identification | | |
| Product Number | 2000101 | |
| Recommended use | Not available. | |
| Recommended restrictions | None known. | |
| Manufacturer/Importer/Supplier/Distributor information | | |
| Manufacturer | | |
| Company name | Thatcher Company, Inc. | |
| Address | 1905 Fortune Road Salt Lake City, UT 84104 United States | |
| Telephone | General Assistance 8-5 | (801) 972-4587 |
| E-mail | Not available. | |
| Emergency phone number | Chemtec (CCN 22106) | (800) 424-9300 |

2. Hazard(s) identification

| | | |
|------------------------------|----------------------------------------------------|------------|
| Physical hazards | Corrosive to metals | Category 1 |
| Health hazards | Skin corrosion/irritation | Category 1 |
| | Serious eye damage/eye irritation | Category 1 |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 1 |
| OSHA defined hazards | Not classified. | |

Label elements



| | |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal word | Danger |
| Hazard statement | May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life. |
| Precautionary statement | |
| Prevention | Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. |
| Response | If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for 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/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. |
| Storage | Store locked up. Store in corrosive resistant container with a resistant inner liner. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. |
| Supplemental information | None. |

3. Composition/information on ingredients

Substances

| Chemical name | Common name and synonyms | CAS number | % |
|------------------------------|--------------------------|------------|------|
| Water-Soft | | 7732-18-5 | 87.5 |
| Sodium Hypochlorite Solution | | 7681-52-9 | 12.5 |

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

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|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| Most important symptoms/effects, acute and delayed | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire-fighting measures

| | |
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| Suitable extinguishing media | Powder. Foam. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Not applicable. |
| Special protective equipment and precautions for firefighters | Wear suitable protective equipment. |
| Fire fighting equipment/instructions | Move containers from fire area if you can do so without risk. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |

6. Accidental release measures

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|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. |

7. Handling and storage

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|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Precautions for safe handling | Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Conditions for safe storage, including any incompatibilities

Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. Workplace Environmental Exposure Level (WEEL) Guides**

| Material | Type | Value |
|----------------------------------------------|------|---------------------|
| T-Chlor | STEL | 2 mg/m ³ |
| Components | Type | Value |
| Sodium Hypochlorite Solution (CAS 7681-52-9) | STEL | 2 mg/m ³ |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state**

Liquid.

Form

Liquid.

Color

Yellow green

Odor

Chlorine.

Odor threshold

Not available.

pH

12

Melting point/freezing point

-20.2 °F (-29 °C)

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

< 0.0000001 kPa at 25 °C

Vapor density

Not available.

Relative density

Not available.

| | |
|------------------------------------------------|-----------------------|
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 9.97 lb/gal estimated |
| Explosive properties | Not explosive. |
| Molecular weight | 74.44 g/mol |
| Oxidizing properties | Not oxidizing. |
| Specific gravity | 1.21 at 20 °C |

10. Stability and reactivity

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|-------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Reactivity | Reacts violently with strong acids. This product may react with oxidizing agents. May be corrosive to metals. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |
| Conditions to avoid | Do not mix with other chemicals. Contact with incompatible materials. |
| Incompatible materials | Acids. Strong oxidizing agents. Oxidizing agents. Metals. |
| Hazardous decomposition products | Not available. |

11. Toxicological information

Information on likely routes of exposure

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|---------------------|--------------------------------------------------------------------------------------|
| Inhalation | May cause irritation to the respiratory system. Prolonged inhalation may be harmful. |
| Skin contact | Causes severe skin burns. |
| Eye contact | Causes serious eye damage. |
| Ingestion | Causes digestive tract burns. |

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity

| Product | Species | Test Results |
|----------------------------------------------|----------------|---------------------|
| T-Chlor | | |
| <u>Acute</u> | | |
| Oral | | |
| LD50 | Mouse | 5800 mg/kg |
| | Rat | 8.91 g/kg |
| Components | Species | Test Results |
| Sodium Hypochlorite Solution (CAS 7681-52-9) | | |
| <u>Acute</u> | | |
| Oral | | |
| LD50 | Mouse | 5800 mg/kg |
| | Rat | 8.91 g/kg |

* Estimates for product may be based on additional component data not shown.

| | |
|------------------------------------------|------------------------------------------|
| Skin corrosion/irritation | Causes severe skin burns and eye damage. |
| Serious eye damage/eye irritation | Causes serious eye damage. |

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium Hypochlorite Solution (CAS 7681-52-9) 3 Not classifiable as to carcinogenicity to humans.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Very toxic to aquatic life.

| Product | | Species | Test Results |
|----------------------------------------------|------|-----------------------------------------------------|----------------------------|
| T-Chlor | | | |
| Aquatic | | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 0.03 - 0.07 mg/l, 96 hours |
| Components | | Species | Test Results |
| Sodium Hypochlorite Solution (CAS 7681-52-9) | | | |
| Aquatic | | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 0.03 - 0.07 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1791

Material name: T-Chlor

2000101 Version #: 07 Revision date: 01-04-2016 Issue date: 03-27-2014

SDS US

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|-------------------------------------|-------------------------------------------------------------------------|
| UN proper shipping name | Hypochlorite solutions |
| Transport hazard class(es) | |
| Class | 8 |
| Subsidiary risk | - |
| Label(s) | 8 |
| Packing group | III |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | IB3, N34, T4, TP2, TP24 |
| Packaging exceptions | 154 |
| Packaging non bulk | 203 |
| Packaging bulk | 241 |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium Hypochlorite Solution (CAS 7681-52-9) Listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

| | |
|--------------------------|------------------------|
| Hazard categories | Immediate Hazard - Yes |
| | Delayed Hazard - No |
| | Fire Hazard - No |
| | Pressure Hazard - No |
| | Reactivity Hazard - No |

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA) Hazardous substance
Section 112(r) (40 CFR 68.130)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US - New Jersey RTK - Substances: Listed substance

Sodium Hypochlorite Solution (CAS 7681-52-9)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Sodium Hypochlorite Solution (CAS 7681-52-9)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Sodium Hypochlorite Solution (CAS 7681-52-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Sodium Hypochlorite Solution (CAS 7681-52-9)

US. Rhode Island RTK

Sodium Hypochlorite Solution (CAS 7681-52-9)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|------------------------------------------------------------------------|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

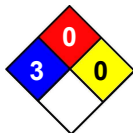
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-27-2014
Revision date 01-04-2016
Version # 07
NFPA ratings Health: 3
 Flammability: 0
 Instability: 0

NFPA ratings



Disclaimer

The information provided in this 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.