tert-Butyl Hypochlorite Revision number: 1 **Revision date: 11/30/2010** Page 1 of 4

Revision date: 11/30/2010

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: tert-Butyl Hypochlorite

Product code: H0362

TCI (Shanghai) DEVELOPMENT CO., LTD. Company:

Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China

Responsible Department: Sales Department +86-(0)21-67121386 Telephone: Fax: +86-(0)21-67121385 e-mail: sales@tcishanghai.com.cn

Revision number:

2. HAZARDS IDENTIFICATION

Classification of the GHS **PHYSICAL HAZARDS**

Flammable liquids Category 2 Self-heating substances and mixtures Category 1

HEALTH HAZARDS

Skin corrosion/irritation Category 1B Serious eye damage/eye irritation Category 1 **ENVIRONMENTAL HAZARDS** Not classified

GHS label elements

Pictograms or hazard symbols





Signal word

Danger **Hazard statement**

Highly flammable liquid and vapour

Self-heating; may catch fire

Causes severe skin burns and eye damage

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. [Prevention]

> Keep cool. Protect from sunlight. Keep container tightly closed.

Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary

measures against ignition by the static discharge and the spark.

Do not breathe.

Wash hands thoroughly after handling.

Wear protective gloves/eve protection/face protection.

[Response] IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER or doctor/physician.

2. HAZARDS IDENTIFICATION

Store away from other materials. [Storage]

> Store in a well-ventilated place. Keep cool. Maintain air gap between stacks/pallets.

Store locked up.

[Disposal] Dispose of contents/container through a waste management company authorized by

the local government

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Component(s): tert-Butyl Hypochlorite

Percent: >98.0%(T) **CAS Number:** 507-40-4

Synonyms: Hypochlorous Acid tert-Butyl Ester

Chemical Formula: C₄H₉CIO

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician.

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of Skin contact:

soap and water. Immediately call a POISON CENTER or doctor/physician.

Rinse cautiously with water for several minutes. Remove contact lenses, if present Eye contact:

and easy to do. Continue rinsing. Immediately call a POISON CENTER or

doctor/physician.

Ingestion: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT

induce vomiting.

Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and air-

tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing

Dry chemical, foam, carbon dioxide.

media:

Extinguishing media not to Water (It may scatter and spread fire.)

be used:

Specific hazards:

Take care as it may decompose upon combustion or in high temperatures to

generate poisonous fume.

Specific methods:

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by

spraying with water. Eliminate all ignition sources if safe to do so.

Special protective

When extinguishing fire, be sure to wear personal protective equipment.

equipment for firefighters:

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to noninvolved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions: Prevent product from entering drains.

Methods and materials for containment and cleaning

Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with

appropriate laws and regulations.

Prevention of secondary

hazards:

up:

Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Handling

7. HANDLING AND STORAGE

Technical measures: Handling is performed in a well ventilated place. Wear suitable protective equipment.

Be careful not to cause leakage, overflow, or dispersion. Steam should not be generated unnecessarily. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Avoid shock and friction. Wash hands and face before

breaks and immediately after handling the product.

Use a closed system if possible. Use a ventilation, local exhaust if vapor or aerosol

will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Storage

Storage conditions: Keep container tightly closed. Store in an explosion-poof refregerator.

Store under inert gas. Store locked up.

Store away from other materials.

Packaging material: Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied

air respirator, etc. Use respirators approved under appropriate government standards

and follow local and national regulations.

Hand protection: Impervious gloves.

Eye protection: Safety goggles. A face-shield, if the situation requires.

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid
Form: clear
Color: Yellow
Odor: Pungent

pH: No data available **Melting point/freezing point:** No data available

Boiling Point/Range: 78 °C

Flash Point: No data available

Explosive limits

Lower: No data available Upper: No data available

Density: 0.96

Solubility: No data available

10. STABILITY AND REACTIVITY

Stability: Stable under proper conditions. **Reactivity:** Spontaneously flammable.

Conditions to avoid: Heat-sensitive, Light-sensitive, Air-sensitive

Incompartible materials: oxidizing agents, acids, bases, reducing agents, rubber, combustibles **Hazardous Decomposition** Carbon monoxide, Carbon dioxide, Hydrogen chloride, Chlorine

Products:

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
Skin corrosion/irritation:
No data available
No data available
No data available

damage/irritation:

Germ cell mutagenicity:

No data available

Carcinogenicity:

11. TOXICOLOGICAL INFORMATION

IARC = No data available
NTP = No data available
Reproductive toxicity: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish:
Crustacea:
Algae:
No data available

potential(BCF): Mobillity in soil

log Pow:No data availableSoil adsorption (Koc):No data availableHenry's LawNo data available

constant(PaM³/mol):

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system but exert extra care in igniting as this material is highly flammable. Observe all federal, state and local regulations when disposing of the substance

14. TRANSPORT INFORMATION

Hazards Class: 4.2: Substance liable to spontaneous combustion .

Subsidiary risk: 8: Corrosive.

UN-No: 3255

Proper shipping name: tert-Butyl hypochlorite

15. REGULATORY INFORMATION

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

16. OTHER INFORMATION

The reference company name of written contents

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.

Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China

Department: R&D (Information Management) Department

Telephone: +86-(0)21-67121388*461 **Fax:** +86-(0)21-67121385

This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.