\*This SDS for user in China - Not correspond to the regulation of other regions.



TCI (Shanghai) DEVELOPMENT CO., LTD.

**Revision number: 2** 

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# SAFETY DATA SHEET

### **1. IDENTIFICATION**

Product name: Bis(tetrabutylammonium) Dichromate [Oxidizing Reagent] Product code: B1123 TCI (Shanghai) DEVELOPMENT CO., LTD. Company: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China Address: **Responsible Department:** Sales Department +86-(0)21-67121386 **Telephone:** +86-(0)21-67121385 Fax: Sales-CN@TCIchemicals.com e-mail: **Emergency telephone:** 0532-83889090 **Revision number:** 2

### 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture PHYSICAL HAZARDS Oxidizing solids HEALTH HAZARDS Acute toxicity (Oral) Acute toxicity (Dermal) Acute toxicity (Inhalation) Skin corrosion/irritation Serious eye damage/eye irritation Carcinogenicity ENVIRONMENTAL HAZARDS Label elements Pictograms or hazard symbols



Precautionary statements

Category 3

Category 3 Category 3 Category 2 Category 2A Category 1A Not classified

Danger May intensify fire; oxidizer Toxic if swallowed, in contact with skin or if inhaled Causes skin irritation Causes serious eye irritation May cause cancer

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[Prevention]	Obtain special instructions before use.
	Do not handle until all safety precautions have been read and understood.
	Keep away from heat.
	Keep and store away from clothing and other combustible materials.
	Take any precaution to avoid mixing with combustibles.
	Avoid breathing dust, fume, mist, vapors or spray.
	Use only outdoors or in a well-ventilated area.
	Do not eat, drink or smoke when using this product.
	Wash hands and face thoroughly after handling.
	Wear protective gloves, protective clothing, face protection.
[Response]	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth.
	IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or
	doctor if you feel unwell. Take off immediately all contaminated clothing and wash

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	it before reuse.
	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call
	a POISON CENTER or doctor.
	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 or attention.
	IF exposed or concerned: Get medical advice or attention.
[Storage]	Store in a well-ventilated place. Keep container tightly closed.
	Store locked up.
[Disposal]	Dispose of contents and container in accordance with local, regional, national
	regulations.
	°
3. COMPOSITION/INFORMAT	TION ON INGREDIENTS
Substance/mixture:	Substance
Components:	Bis(tetrabutylammonium) Dichromate [Oxidizing Reagent]
Percent:	>97.0%(T)
CAS RN:	56660-19-6
Chemical Formula:	C32H72Cr2N2O7
4. FIRST AID MEASURES	Demove victim to freeh air and keep at reat in a position comfortable for breathing
4. FIRST AID MEASURES Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Inhalation:	Call a POISON CENTER or doctor/physician.
	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty
Inhalation: Skin contact:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
Inhalation:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present
Inhalation: Skin contact: Eye contact:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.
Inhalation: Skin contact:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present
Inhalation: Skin contact: Eye contact:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
Inhalation: Skin contact: Eye contact: Ingestion:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.
Inhalation: Skin contact: Eye contact: Ingestion:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders: 5. FIRE-FIGHTING MEASURE Suitable extinguishing media:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles. <b>S</b> Dry chemical, foam, water spray, carbon dioxide.
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders: 5. FIRE-FIGHTING MEASURE Suitable extinguishing media: Specific hazards arising from	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders: 5. FIRE-FIGHTING MEASURE Suitable extinguishing media: Specific hazards arising from the chemical:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles. S Dry chemical, foam, water spray, carbon dioxide. mExplosion risk in case of fire. Fight fire remotely due to the risk of explosion.
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders: 5. FIRE-FIGHTING MEASURE Suitable extinguishing media: Specific hazards arising from	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles. <b>S</b> Dry chemical, foam, water spray, carbon dioxide. mExplosion risk in case of fire. Fight fire remotely due to the risk of explosion. Fire-extinguishing work is done from the windward and the suitable
Inhalation: Skin contact: Eye contact: Ingestion: Protection of first-aiders: 5. FIRE-FIGHTING MEASURE Suitable extinguishing media: Specific hazards arising from the chemical:	Call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. Immediately call a POISON CENTER or doctor/physician. Rinse mouth. A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles. S Dry chemical, foam, water spray, carbon dioxide. mExplosion risk in case of fire. Fight fire remotely due to the risk of explosion.

surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so. cial protective equipment When extinguishing fire, be sure to wear personal protective equipment

Special protective equipment When extinguishing fire, be sure to wear personal protective equipment for firefighters:

## 6. ACCIDENTAL RELEASE MEASURES

	LAUGHEU
Personal precautions,	Use personal protective equipment. Keep people away from and upwind of
protective equipment and	spill/leak. Entry to non-involved personnel should be controlled around the leakage
emergency procedures:	area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for	Sweep dust to collect it into an airtight container, taking care not to disperse it.
containment and cleaning	Adhered or collected material should be promptly disposed of, in accordance with
up:	appropriate laws and regulations.
Prevention of secondary	Remove all sources of ignition. Fire-extinguishing devices should be prepared in
hazards:	case of a fire. Use spark-proof tools and explosion-proof equipment. Ensure all
	leaks are completely removed to prevent subsequent ignition.

7. HANDLING AND STORAGI	
Precautions for safe handling	
Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Keep away from heat. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.
Advice on safe handling:	Avoid all contact!
	Don't leave used equipment or rag. This product may ignite if it is left stuck on combustibles such as paper, rags, etc.
Conditions for safe storage, inc	luding any
incompatibilities	
Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up.
	Be sure not to give the container unexpected impacts, such as falling down or falling off.
	Store away from combustibles.
Packaging material:	Comply with laws.
8. EXPOSURE CONTROLS / I	PERSONAL PROTECTION
Engineering controls:	Install a closed system or local exhaust. Also install safety shower and eye bath.
Personal protective equipme	ent
Respiratory protection:	Dust 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.

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):	Solid
Form:	Crystal - Powder
Colour:	Yellow - Yellow red
Odour:	No data available
pH:	No data available
Melting point/freezing point:	136°C
Boiling point/range:	No data available
Flash point:	No data available
Flammability or explosive	
limits:	
Lower:	No data available
Upper:	No data available
Relative density:	No data available
Solubility(ies):	
[Water]	No data available
[Other solvents]	No data available

## **10. STABILITY AND REACTIVITY**

Chemical stability:	Stable under proper conditions.
Possibility of hazardous	May cause fire or explosion on contact with reducing agents or mixing with
reactions:	combustibles.
Conditions to avoid:	Heat, Shock, Friction, Light
Incompatible materials:	Strong acids, Reducing agents, Combustibles
Hazardous decomposition	Carbon monoxide, carbon dioxide etc
products:	

#### **11. TOXICOLOGICAL INFORMATION**

Acute Toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye	No data available
damage/irritation:	
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	Group 1 (Carcinogenic to humans)
NTP =	No data available
Reproductive toxicity:	No data available

#### **12. ECOLOGICAL INFORMATION**

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative	No data available
potential(BCF):	
Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM <sup>3</sup> /mol):	No data available

#### **13. DISPOSAL CONSIDERATIONS**

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. If it mixes with inflammable solvents, it may catch fire. Observe all federal, state and local regulations when disposing of the substance.

#### **14. TRANSPORT INFORMATION**

Hazards Class:	5.1: Oxidizer.
Subsidiary risk:	6.1: Toxic substance.
UN-No:	3087
Proper shipping name:	Oxidizing solid, toxic, n.o.s.
Packing group:	III

#### **15. REGULATORY INFORMATION**

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): 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:	Technical Information Department
Emergency telephone:	0532-83889090
Fax:	+86-(0)21-67121385

This SDS 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. The 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 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.