TCI (Shanghai) DEVELOPMENT CO., LTD.

3-Bromobutyronitrile

Revision number: 1

Revision date: 11/29/2010

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SAFETY DATA SHEET

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

Product name: Product code: Company: Address: Responsible Department: Telephone: Fax: e-mail: Revision number:

2. HAZARDS IDENTIFICATION Classification of the GHS

PHYSICAL HAZARDS Flammable liquids HEALTH HAZARDS Acute toxicity (Oral) Acute toxicity (Dermal) Acute toxicity (Inhalation) Skin corrosion/irritation Serious eye damage/eye irritation ENVIRONMENTAL HAZARDS GHS label elements Pictograms or hazard symbols

3-Bromobutyronitrile B1452 TCI (Shanghai) DEVELOPMENT CO., LTD. No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China Sales Department +86-(0)21-67121386 +86-(0)21-67121385 sales@tcishanghai.com.cn 1

Category 4

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

Danger Combustible liquid Toxic by inhalation, in contact with skin and if swallowed Causes skin irritation Causes serious eye irritation

Keep away from flames and hot surfaces. Avoid breathing. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear protective gloves and eye/face protection.



Signal word Hazard statement

Precautionary statements [Prevention]

2. HAZARDS IDENTIFICATION

[Response]	 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. 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. IF ON SKIN: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.
	Call a POISON CENTER or doctor/physician if you feel unwell.
[Storage]	Store in a well-ventilated place. Keep container tightly closed. 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):	3-Bromobutyronitrile
Percent:	>98.0%(GC)
CAS Number:	20965-20-2
Synonyms:	2-Bromopropyl Cyanide
Chemical Formula:	C ₄ H ₆ BrN

4. FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Call a POISON CENTER or doctor/physician.
Eye contact:	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:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
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 media:	Dry chemical, foam, water spray, carbon dioxide.
Extinguishing media not to be used:	Solid streams of water
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: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment.

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 non-
involved personnel should be controlled around the leakage area by roping off, etc.Environmental precautions:Prevent product from entering drains.

6. ACCIDENTAL RELEASE MEASURES

Methods and materials for	Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust).
containment and cleaning	In case of large amount of spillage, contain a spill by bunding. Adhered or collected
up:	material should be promptly disposed of, in accordance with appropriate laws and regulations.
Prevention of secondary hazards:	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

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Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system, ventilation.	
Advice on safe handling:		
-		
Storage		
Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up.	
	Store away from incompatible materials such as oxidizing agents.	
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: Eye protection: Skin and body protection:	Impervious gloves. Safety goggles. A face-shield, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Liquid
Form:	clear
Color:	Colorless - Pale yellow
Odor:	No data available
pH:	No data available
Melting point/freezing point	No data available
Boiling Point/Range:	72 °C/1.3kPa
Flash Point:	No data available
Explosive limits	
Lower:	No data available
Upper:	No data available
Density:	1.47
Solubility:	No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under proper conditions.
Reactivity:	No special reactivity has been reported.
Incompartible materials:	oxidizing agents, strong acids, strong bases, reducing agents
Hazardous Decomposition	Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen bromide,
Products:	Cyanide

11. TOXICOLOGICAL INFORMATION

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

11. TOXICOLOGICAL INFORMATION

Serious eye	No data available
damage/irritation: Germ cell mutagenicity: Carcinogenicity:	No data available
IARC = NTP =	No data available 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):	
Mobillity in soil	
log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law	No data available
constant(PaM ³ /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. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class:	6.1: Toxic substance.
UN-No:	3276
Proper shipping name:	Nitriles, toxic, liquid, n.o.s.
Packing group:	III

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.
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