TCI (Shanghai) DEVELOPMENT CO., LTD.

Piperonyl Butoxide

Revision number: 1

Revision date: 12/01/2010

Page 1 of 4

Revision date: 12/01/2010

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:**

Piperonyl Butoxide P0458 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

2. HAZARDS IDENTIFICATION **Classification of the GHS PHYSICAL HAZARDS**

HEALTH HAZARDS Acute toxicity (Dermal) **ENVIRONMENTAL HAZARDS** Acute aquatic toxicity Chronic aquatic toxicity **GHS** label elements Pictograms or hazard symbols



Signal word Hazard statement

Precautionary statements

Not classified

Category 2

Category 1 Category 1

Danger Fatal in contact with skin Very toxic to aquatic life Very toxic to aquatic life with long lasting effects

Frecautionaly statements	
[Prevention]	Do not get in eyes, on skin, or on clothing.
	Avoid release to the environment.
	Do not eat, drink or smoke when using this product.
	Wash hands thoroughly after handling.
	Wear protective gloves and eye/face protection.
[Response]	IF ON SKIN: Gently wash with plenty of soap and water.
	Remove/Take off immediately all contaminated clothing.
	Wash contaminated clothing before reuse.
	Immediately call a POISON CENTER or doctor/physician.
	Collect spillage.
[Storage]	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):	Piperonyl Butoxide
Percent:	>90.0%(GC)
CAS Number:	51-03-6
Synonyms:	5-[2-(2-Butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole

3. COMPOSITION/INFORMATION ON INGREDIENTS Chemical F

Formula:	$C_{19}H_{30}O_5$
ormula.	C191 130C5

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 soap and water. Immediately call a POISON CENTER or doctor/physician.	
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.Immediately call a POISON CENTER or doctor/physician.	
Get medical advice/attention if you feel unwell. Rinse mouth.	
diarrhoea, vomiting 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 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

ACCIDENTAL RELEASE WE	ASURES
Personal precautions,	Use extra personal protective equipment (self-contained breathing apparatus). Keep
protective equipment and	people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-
emergency procedures:	involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Be careful not to let it flow into rivers, etc., since adverse effects on the environment
	are concerned.
Methods and materials for containment and cleaning up:	Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). 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.

7. HANDLING AND STORAGE

Handling

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapor or aerosol will be generated.
Advice on safe handling: Storage	Avoid contact with skin, eyes and clothing.
Storage conditions:	Keep container tightly closed. Store in a cool and dark 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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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:	Very pale yellow - Yellow
Odor:	Nearly odorless
pH:	No data available
Melting point/freezing point	:No data available
Boiling Point/Range:	195 °C/0.3kPa
Flash Point:	171°C
Explosive limits	
Lower:	No data available
Upper:	No data available
Density:	1.06
Solubility:	Miscible with : Methanol Ethanol Benzene and other organic solvents. Insoluble in: Water (14mg/L 25°C)
log Pow =	4.36

10. STABILITY AND REACTIVITY

Stability:	Stable under proper conditions.	
Reactivity:	No special reactivity has been reported.	
Incompartible materials:	oxidizing agents	
Hazardous Decomposition	Carbon monoxide, Carbon dioxide	
Products:		

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	ipr-mus LDLo:1 g/kg
	orl-rat LD50:6150 mg/kg
	skn-rbt LD50:200 mg/kg
	ihl-dog TCLo:15000 ppm/20M
Skin corrosion/irritation:	No data available
Serious eye	No data available
damage/irritation:	
Germ cell mutagenicity:	msc-hmn-emb 50 ug/L
	dni-rat-orl 3850 mg/kg/7D-C
Carcinogenicity:	orl-rat TDLo:526 g/kg/2Y-C
	scu-mus TDLo:1000 mg/kg
IARC =	Group 3 (Not classifiable as carcinogenic to humans).
NTP =	No data available
Reproductive toxicity:	orl-rat TDLo:51.2 g/kg(multigenerations)
	ipr-mus TDLo:200 mg/kg(1D male)
	orl-rat TDLo:3600 mg/kg(11-12D preg)
	scu-mus TDLo:9 g/kg(6-14D preg)
RTECS Number:	XS8050000

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available

12. ECOLOGICAL INFORMATION

Bioaccumulative	90
potential(BCF):	
Mobillity in soil	
log Pow:	4.36
Soil adsorption (Koc):	399 - 830
Henry's Law	9 x 10⁻ ⁶
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:	2810
Proper shipping name:	Toxic liquid, organic, n.o.s.
Packing group:	II

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.