

Material Safety Data Sheet

Supplier

TCI America 9211 N. Harborgate St. Portland, OR 97203 1-800-423-8616

In case of Emergency Call

Chemtrec® (800) 424-9300 (U.S.) (703) 527-3887 (International)

TOKYO CHEMICAL INDUSTRY CO., LTD.

Cyhalofop Butyl

Revision 4 number:

Revision date: 02/03/2012

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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:**

Cyhalofop Butyl C2417 TOKYO CHEMICAL INDUSTRY CO., LTD. 4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan **Global Business Department** +81-3-5640-8872 +81-3-5640-8902 globalbusiness@tokyokasei.co.jp 4

Not classified

Category 1

Category 1

liver

2. HAZARDS IDENTIFICATION **Classification of the GHS** PHYSICAL HAZARDS **HEALTH HAZARDS** Specific target organ toxicity - Repeated exposure [Category 2] **ENVIRONMENTAL HAZARDS** Acute aquatic toxicity Chronic aquatic toxicity **GHS** label elements Pictograms or hazard symbols

Signal word Hazard statement



Warning

May cause damage to organs through prolonged or exposure : liver

Very toxic to aquatic life Very toxic to aquatic life with long lasting effects

Precautionary statements [Prevention]

[Response]

[Disposal]

Do not breathe. Avoid release to the environment. Get medical advice/attention if you feel unwell. Collect spillage. Dispose of contents/container through a waste management company authorized by the local government.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Compontent(s):	Cyhalofop Butyl
Percent:	>97.0%(GC)
CAS Number:	122008-85-9
Synonyms:	Butyl (R)-2-[4-(4-Cyano-2-fluorophenoxy)phenoxy]propionate , (R)-2-[4-(4-Cyano-2-
	fluorophenoxy)phenoxy]propionic Acid Butyl Ester
Chemical Formula:	$C_{20}H_{20}FNO_4$
Notice Through Official Gazettes Reference Number	

Notice I nrough Official Gazettes Reference Number

3. COMPOSITION/INFORMATION ON INGREDIENTS

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ENCS:	Not Listed
ISHL:	4-(7)-1745
4. FIRST-AID MEASURES	
	Demove victim to freeh air and keen at reat in a negition comfortable for breathing
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	Get medical advice/attention if you feel unwell.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of
_	soap and water. If skin irritation or rash occurs: Get medical advice/attention.
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:	Get medical advice/attention if you feel unwell. Rinse mouth.
Drotostion of first siders.	
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-
	tight goggles.
5. FIRE-FIGHTING MEASURES	S
Suitable extinguishing	Dry chemical, foam, water spray, carbon dioxide.
media:	bry chemical, ioani, water spray, carbon dioxide.
Specific hazards:	Take care as it may decompose upon combustion or in high temperatures to
Specific flazards.	generate poisonous fume.
Specific methods:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing
Specific methods.	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.
Creatial protoctive	
Special protective	When extinguishing fire, be sure to wear personal protective equipment.
equipment for firefighters:	
6. ACCIDENTAL RELEASE ME	FASURES
Personal precautions,	Use personal protective equipment. Keep people away from and upwind of spill/leak.
protective equipment and	Entry to non-involved personnel should be controlled around the leakage area by
emergency procedures:	roping off, etc.
emergency procedures.	

protective equipment and	Entry to non-involved personnel should be controlled around the leakage area by
emergency procedures:	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	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.

7. HANDLING AND STORAGE

Handling

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling.
Advice on safe handling:	Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.
Storage	
Storage conditions:	Keep container tightly closed. Store in a refrigerator. Store away from incompatible materials such as oxidizing agents.

Packaging material:

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Law is followed.

Engineering controls:	Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.	
Control parameters:	Not set up	
Personal protective equipment		
Respiratory protection:	Dust respirator. Follow local and national regulations.	
Hand protection:	Protective gloves.	
Eye protection:	Safety glasses. A face-shield, if the situation requires.	
Skin and body protection:	Protective clothing. Protective boots, if the situation requires.	

9. PHYSICAL AND CHEMICAL PROPERTIES Physical state (20°C): Solid Form: crystal - lump White - Almost white Color: No data available Odor: No data available pH: Melting point/freezing point: 49°C **Boiling Point/Range:** No data available Flash Point: No data available **Explosive limits** No data available Lower: Upper: No data available No data available Density: Soluble in : Methanol Solubility: **10. STABILITY AND REACTIVITY** Stability: Stable under proper conditions. **Reactivity:** No special reactivity has been reported. Conditions to avoid: Heat-sensitive Incompatible materials: oxidizing agents Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen fluoride Hazardous Decomposition **Products: 11. TOXICOLOGICAL INFORMATION** No data available Acute Toxicity: Skin corrosion/irritation: No data available Serious eye No data available damage/irritation: Germ cell mutagenicity: No data available Carcinogenicity: IARC = No data available No data available NTP = No data available **Reproductive toxicity:** 12. ECOLOGICAL INFORMATION **Ecotoxicity:** Fish: No data available No data available Crustacea: No data available Algae: 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 dissolve or mix material with a combustible solvent and 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:	9: Miscellaneous dangerous goods.
UN-No:	3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Packing group:	III

14. TRANSPORT INFORMATION

15. JAPANESE REGULA	TORY INFORMATION
Law for safety of ves	sels: Hazardous materials notification, Schedule form No.1 Harmful substances
Pollutant Release and	d on Designated Chemical Substances, Class I List(No.361)
Transfer Register Lav	N:
Water Pollution Cont	
Law:	
16. OTHER INFORMATIC	DN
The reference compa	iny name of written contents
Company:	TOKYO CHEMICAL INDUSTRY CO., LTD.
Address:	4-10-2, Nihonbashi-honcho, Chuo-ku, Tokyo 103-0023, Japan
Department:	Global Business Department
Telephone:	+81-3-5640-8872
Fax:	+81-3-5640-8902

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.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.