

MATERIAL SAFETY DATA SHEET

: According to EC-directive 2001/58/EC

Rubber Accelerator CBS (CZ)

HS Code: 29342000.90

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product label name	N-Cyclohexyl-2-benzothiazolesulfenamide
Supplier	Qingdao YLSCH Industry&Trade Co.,Ltd Room 501,2-3 Unit. No.8,Zhengzhou Road, Qingdao,China. TEL: +86 18661665800
Emergency telephone	+86 18661665800
Intended use	Rubber Vulcanization Accelerator

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	N-环己基-2-苯并噻唑次磺酰胺 N-Cyclohexyl-2-benzothiazolesulfenamide
CAS NO.	95-33-0
Chemical description	Gray white granule
TSCA NO.	none
EINECS NO.	none
Other information	C ₁₃ H ₁₆ N ₂ S ₂

3. HAZARDS IDENTIFICATION

Repeated contact may cause skin sensitization. Very toxic to aquatic organisms, May cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Symptoms and effects	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. Repeated contact may cause skin sensitization.
First aid	
General	In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation	Move to fresh air. If symptoms persist, seek medical advice.
Skin	Remove all contaminated clothing immediately. Wash off with plenty of soap and water. Seek medical advice if irritation develops. Launder clothes before reuse.
Eye	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to Ensure thorough rinsing. Seek medical advice if irritation develops.
Ingestion	Rinse mouth, give water to drink.
Advice to physician	No specific recommendations.

5. FIRE-FIGHTING MEASURES

Extinguishing media	Waterspray, water mist, foam, dry chemical powder, CO ₂
Unsuitable extinguishing media	Waterjet.
Special exposure hazards	Emits toxic fumes under fire conditions.
Hazardous decomposition/ Combustion products	Carbon monoxide (CO), Sulfur oxides (SO _x), nitrous gases (NO _x).
Protective equipment	Wear self contained breathing apparatus.
Other information	Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	For personal protection see Section 8. Avoid dust generation.
Environmental precautions	Avoid discharge into the environment.
Methods for cleaning up	Collect as much as possible in a clean container for (preferable) reuse or disposal.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin. Avoid dust generation. Take precautionary measures against static discharges. Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. Dust explosion class (VDI 2263): St 2.
Fire and explosion prevention	Kst: 169 - 237 bar.m/s. Maximum corrected explosion pressure: 7.3 - 8.2 bar.
Storage requirements	Store in a dry and cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	Avoid dust generation.Ensure good ventilation and local exhaustion of the working area.
Exposure limits	
Name: N-Cyclohexylbenzothiazole-2-sulfenamide	OES-TWA 5.0 mg/m3
Personal protection	
Respiratory	Avoid breathing dust. In case of insufficient ventilation,wear suitable respiratory equipment.
Hand	Wear suitable gloves.
Eye	Wear safety goggles.
Skin and body	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Gray-white granule	Colour	Gray-white
Odour	Slightly bitter	Boiling point	----
Melting point ≥	96°C	Flash point	177°C
Flammability	----	Explosion limits	----
Explosive properties		Auto ignition temperature	----
Oxidizing properties	----	Vapour pressure	----
Density	1.28g/cm ³ (25°C)	Bulk density	----
Solubility in water	Insoluble in water	Solubility in other solvents	In most organic solvents
pH value	----	Partition coefficient	----
Residues (150um)% Max	----	Relative vapour density	----
Viscosity	----	Assay content % ≥	95
Strength of grain(N)	0.6-2.5		

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid	Heating > 100 °C: May catch fire.
Materials to avoid	No specific recommendations
Hazardous decomposition products	Thermal decomposition products: carbon monoxide (CO), nitrous gases (NO _x), Sulfur oxides (SO _x).

11. TOXICOLOGICAL INFORMATION

Name	N-Cyclohexylbenzothiazole-2-sulfenamide
Acute toxicity	
Oral LG50	rat:5300 mg/kg.
Dermal LD50	rabbit:7940 mg/kg.
Irritation	
Skin	Slightly irritating to skin but not sufficient for classification.
Eye	Slightly irritating to eyes but not sufficient for classification.

12. ECOLOGICAL INFORMATION

Name	N-Cyclohexylbenzothiazole-2-sulfenamide
Ecotoxicity	
Fish	96h-LC50 (Lepomis macrochirus): 7.9 mg/l. 96h-LC50 (Oncorhynchus mykiss): 5.4 mg/l. 96h-LC50 (Pimephales promelas): > 1000 mg/l.
Daphnia	48h-EC50 (Daphnia magna): 18mg/l.
Algae	96h-IC50 (Selenastrum capricornutum): 1.1 mg/l.
Degradation Biotic	Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Product	Avoid discharge into the environment Small quantities: According to local regulations. Large quantities: Consult YLSCH Chemical for special advice.
Contaminated packaging	According to local regulations. Waste code number: Please refer to your specific industry
Other information	in the European Waste Catalogue.

**14. TRANSPORT INFORMATION****Land transport (ADR/ RID)**

ADR class	9	RID class	9
ADR/RID packing group	----	Hazard Identification No.	90
Substance Identification No.	3077	UN number	3077

Environmentally hazard us substance, solid, n.o.s.

Proper Shipping Name (N-cyclohexyl-2-benzothiazole sulfenamide)**Sea transport (IMDG-code/ IMO)**

Correct technical name	----	IMDG Class	
UN Number	----	Packaging group	
EMS Number	----		
Air transport (ICAO-TI/ IATA-DGR)			
ICAO-TI/IATA-DGR Class	9	UN number	3077
Packing group	Environmentally hazardous substance, solid, n.o.s.		
Correct technical name	(N-cyclohexyl-2-benzothiazole sulfenamide)		

15. REGULATORY INFORMATION

Chemical description	N-cyclohexyl-2-benzothiazole sulfenamide
Labelling according to EC directives	
EC-number	See section 2
Classification based on	Annex-1 to directive 67/548/EEC
	R 43 May cause sensitization by skin contact
	May cause long-term adverse effects in the aquatic environment
R(isk) phrase(s)	R51/53 Toxic to aquatic organisms,may cause long term Adverse effects in the aquatic environment.
	S 24 Avoid contact with skin
	S 37 Wear suitable gloves
	S 60 This material and its container must be disposed of as hazardous waste
S(afety) phrase(s)	S 61 Avoid release to the environment. Refer to special instruction /Safety data sheets
Other information	To be displayed on the label: "EC label".
Wassergefährdungsklasse (WGK)	2 (VwVwS Anhang 3, Nr. 6605)

16.OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

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