

天津市有机化工一厂

TIANJIN NO.1 ORGANIC CHEMICAL PLANT
NO.7, FUJIN ROAD, BEICHEN DISTRICT, TIANJIN, CHINA

ADD: 天津市北辰区富锦道 P.C.: 300400 TEL: ++86-22-26393324 FAX: ++86-22-26393324

SAFETY DATA SHEET

ACCELERATOR DCBS

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product label name N,N'-Dicyclohexyl-2-benzothiazolesulfenamide
Supplier Tianjin No.1 Organic Chemical Plant
No.3 Fujin Road
BeiChen District
Tianjin China
Tel. +86-22-26399283
Fax. +86-22-26390694
Contacting person: Zhang Wei Ren (yihuabangongshi@163.com)
Emergency telephone +86-22-26393844
Intended use Vulcanisation accelerator

2. HAZARDS IDENTIFICATION

Emergency Overview: Combustible dust – explosion potential. Causes mild eye irritation and moderate skin irritation. Inhalation of dust may cause respiratory tract irritation.

Eye Contact: Causes mild eye irritation. Mild eye irritation: signs/symptoms can include redness, swelling, pain and tearing.

Skin Contact: Causes moderate skin irritation. Moderate Skin Irritation: signs/symptoms can include redness, swelling, itching, and dryness. May cause an allergic skin reaction.

Inhalation: May cause mild respiratory irritation. May irritate mouth, nose, and throat. Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

Ingestion: Illness may occur after a single swallowing of relatively large quantities of this material

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical description N,N'-Dicyclohexyl-2-benzothiazolesulfenamide

Composition / information on ingredients

Number	%w/w	CAS-number	Chemical name
1	>96	4979-32-2	N,N'-Dicyclohexyl-2-benzothiazolesulfenamide
2	<1.0	120-78-5	Mercaptobenzothiazole Disulfide
3	<0.5	101-83-7	Dicyclohexylamine

Other information Formula: C₁₉H₂₆N₂S₂

4. FIRST AID MEASURES

Symptoms and effects Dust may be irritating to the respiratory tract and cause symptoms of bronchitis.

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 Wash immediately with soap and water.



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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/	Sulfur oxides (SO _x), nitrous gases (NO _x).
Combustion Products	
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 dust generation. The usual precautions for handling chemicals should be observed.
Fire and explosion prevention	Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. Dust explosion class (VDI 2263): St 1. K _{max} : 173 bar.m/s. Maximum corrected explosion pressure: 7.6 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	No exposure limit has been established.

Name

N,N'-Dicyclohexyl-2-benzothiazole sulfenamide in this country no exposure limit has been established.

Personal protection

Respiratory	Avoid breathing dust.
Hand	Wear suitable gloves.
Eye	Avoid contact with eyes.
Skin and body	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	granules
Colour	whitish
Boiling point/range	not relevant
Melting point/range	95°C
Flash point	not determined
Flammability	not determined



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Autoignition temperature	320 °C (dust)
Explosive properties	dust explosion hazard
Explosion limits	Lower Explosion Limit (LEL): 10 g/m ³ Minimum ignition energy (MIE): ∞ 3
Oxidizing properties	not applicable
Vapour pressure	not determined
Density	1270 kg/m ³
Bulk density	430-470 kg/m ³
Solubility in water	Practically insoluble
Solubility in other solvents	Ethanol in most organic solvents
pH value	not determined
Partition coefficient	not determined
n-octano/water	
Relative vapour density (air=1)	not applicable
Viscosity	not applicable

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid	Keep away from heat.
Materials to avoid	No. specific recommendations.
Hazardous decomposition	No hazardous decomposition products known.
Products	

11. TOXICOLOGICAL INFORMATION

Name	N,N'-Dicyclohexyl-2-benzothiazolesulfenamide
Acute toxicity	
Oral LD50	rat: >5000 mg/kg
Dermal LD50	rabbit: >5000 mg/kg.
Irritation	
Skin	Non-irritating
Eye	Non-irritating
Genotoxicity	Not mutagenic (in vitro, in vivo)

12. ECOLOGICAL INFORMATION

No experimental ecological data are available on the substance as such. From structurally related products the following
May be expected

Name	2-Mercaptobenzothiazole
Degradation Biotic	Not readily biodegradable



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13. DISPOSAL CONSIDERATIONS

Product This material is not a RERA hazardous waste. Bury in a licensed landfill or burn in an approved incinerator according to federal, state, and local regulations. Empty containers should be handled in a manner not to cause dusting during collection, transportation and disposal.

Consult state, local or national regulations to ensure proper disposal.

Contaminated packaging According to local regulations.

14. TRANSPORT INFORMATION

Land transport(ADR/RID)

ADR class	not restricted	ADR Classification Code	not relevant
RID class	not restricted	ADR/RID packing group	
Hazard Identification No.	not relevant	Substance Identification No.	not relevant
TREM-Card	not relevant	UN number	none
Proper Shipping Name	not relevant		

Sea transport (IMDG-code/IMO)

IMO/IMDG code	not restricted	Class	not restricted
Packing group	not relevant	UN number	none
EMS	not relevant	Subsidiary Risk	no
Proper Shipping Name	not relevant		

Air transport (ICAO-TI/IATA-DGR)

ICAO-TI/IATA-DGR		UN number	none
Class	not restricted	Packing group	not relevant
Proper Shipping Name	not relevant		

15. REGULATORY INFORMATION

Chemical description N,N'-Dicyclohexyl-2-benzothiazolesulfenamide

Labelling according to EC directives

EC-number	See section 2
Classification based on	Tests
Symbol(s)	none
Wassergefährdungsklasse (WGK)	2 (Vw VwS Anhang 2 Nr.1321)

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.

History

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