



Henan Rongxinxin Auxiliary Co., Ltd.

SAFETY DATA SHEET

According to EC-directive 93/112/EC

SANTOCURE DCBS

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

Product label name N,N'-Dicyclohexyl-2-benzothiazolesulfenamide
Supplier Henan Rongxinxin Auxiliary Co., Ltd.
Address: East of Xiaozhuang Village, Shancheng District, Hebi City,
Tel 0086-392-2632999
Fax 0086-392-2288878
Emergency telephone 0086-0392-2632999

Intended use Vulcanisation accelerator

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a substance in conformance to EC directives.

Information on hazardous 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 | |
| Number | EC-number | Annex-1 number | Symbol(s) | Risk-phrase(s) |
| 1 | 225-625-8 | | none | R53 |

Other information Formula: C₁₉H₂₆N₂S₂.

3. HAZARDS IDENTIFICATION

This product is considered to be relatively harmless to man.

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.
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.
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, CO₂
Unsuitable extinguishing media waterjet.
Special exposure hazards Emits toxic fumes under fire conditions.
Hazardous decomposition/combustion products sulphur dioxide (SO₂), 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 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.
Storage requirements Store in a dry and cool place.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls Avoid dust generation. Ensure good ventilation and local exhaustion of the working

Exposure limits area.
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 determined
Melting point/range 95 °C
Flash point not determined
Flammability not determined
Autoignition temperature not determined
Explosive properties not determined
Explosion limits not determined
Oxidizing properties not applicable
Vapour pressure not determined
Density 1270 kg/m³
Bulk density 430-470 kg/m³
Solubility in water Practically insoluble
Solubility in other solvents Ethanol, in most organic solvents
pH value not determined
Partition coefficient not determined
n-octanol/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 products No hazardous decomposition products known.

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)

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| 12. ECOLOGICAL | 2-Mercaptobenzothiazole | INFORMATION |
|---|---------------------------|---|
| No experimental ecological data products the following may be expected. | Not readily biodegradable | are available on the substance as such. From structurally related |

Name

Fate

Degradation Biotic

13. DISPOSAL CONSIDERATIONS

| | |
|-------------------------------|--|
| Product | Small quantities: According to local regulations (most probably controlled incineration). Large quantities: Consult Flexsys for special advice. |
| Contaminated packaging | According to local regulations. |

14. TRANSPORT INFORMATION

| <i>Land transport (ADR/ RID)</i> | | | |
|--|----------------|-------------------------------------|-----------------------------|
| ADR class | not restricted | ADR/RID item no. | not relevant / 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 | | |
| <i>Sea transport (IMDG-code/ IMO)</i> | | | |
| IMO/IMDG code | not restricted | Class | not restricted |
| Packing group | not relevant | UN number | none |
| EMS | not relevant | MFAG | no |
| Proper Shipping Name | not relevant | | |
| <i>Air transport (ICAO-TI/ IATA-DGR)</i> | | | |
| 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 | | |
| R(isk) phrase(s) | R 53 May cause long-term adverse effects in the aquatic environment | | |
| S(afety) phrase(s) | S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets | | |
| Wassergefährdungsklasse (WGK) | 2 (VwVwS 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.

R-pharse information

Chemical name Risk-phrase(s)
N,N-Dicyclohexyl-2-benzothiazolesulR53
fenamide

May cause long-term adverse effects in the aquatic environment

History

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| Revision | 2.03 |
| Composed by | Dr. E.F. Kunding |
| Changes were made in section | 1, 8, 11, 13, 14, 15, 16 |