



MATERIAL SAFETY DATA SHEET

CBS(CZ) N-CYCLOHEXY-2-BENZOTHIAZOLE SULFONAMIDE

1 IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:

Identification on the label/Trade name:	AC-CBS
Additional identification:	N-Cyclohexyl-2-benzothiazolesulfenamide
Identification of the product:	CAS#95-33-0; EC#202-411-2
Index Number:	613-136-00-6
REACH registration No.:	Not available.

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used as Accelerator.

1.2.2 Uses advised against:

Not available.

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008

Hazard classes/Hazard categories	Hazard statement
Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

For full text of H- phrases: see section 2.2.

67/548/EEC

Hazards characteristics	R-Phrases
Xn	R43
N	R50/53

For full text of R- phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:



Not applicable.

2.1.2.2 The most important adverse human health effects:

May cause an allergic skin reaction.

2.1.2.3 The most important adverse environmental effects:

Very toxic to aquatic life with long lasting effects.

2.2 label elements

Hazard Pictograms:



Signal Word(S):

Warning

Hazard Statement:

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P261 Avoid breathing

dust/fume/gas/mist/vapors/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P302 + P352 IF ON SKIN: Wash with plenty of soap

2.3 Other hazards

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

3 COMPOSITION/INFORMATION ON INGREDIENT

Substance/Mixture:

Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
N-Cyclohexyl-2-benzothiazolesulfenamide	N/A	95-33-0	202-411-2	96-99%
Additive Package	N/A	-	-	0.5-2.5%
2-Mercaptobenzothiazole	N/A	149-30-4	205-736-8	0-1%
Cyclohexylamine	N/A	108-91-8	203-629-0	0-0.5%
Mercaptobenzothiazole Disulfide	N/A	120-78-5	204-424-9	0-1%
Benzothiazole	N/A	95-16-9	202-396-2	0-0.5%



4 FIRST AID MEASURES

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

4.1.2 In case of skin contact:

Remove any contaminated clothing or shoes. Wash affected areas thoroughly with soap and water for at least 15 minutes. If irritation persists or any sign of tissue damage is apparent, seek medical attention.

4.1.3 In case of eyes contact:

Rinse immediately and as long as possible with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation persists

4.1.4 In case of ingestion:

Rinse mouth. Give water to drink.

4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Water fog, carbon dioxide, foam, dry chemical.

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

Toxic emissions may result if product is involved in a fire. Fire produces highly toxic sulfur dioxide gas

5.3 Advice for fire-fighters:

Firefighters must wear fire resistant protective equipment. Wear self contained breathing apparatus and protective gloves.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapor or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

6.2 Environmental Precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment. Keeping away from drains, surface-and ground-water and soil.



6.3 Methods for Containment and Cleaning up:

Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Scoop up and remove. Do NOT spread spilled product with water.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

Wet clean or vacuum up solids.

Don't use a brush or compressed air for cleaning surfaces or clothing.

Clear spills immediately.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Do not breathe dusts/vapor. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Take precautionary measures against static discharges.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material.

7.2 Conditions for safe storage, including any incompatibilities:

Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Do not store near Insoluble Sulfur. Slowly degrades and releases irritating vapors under warm, humid conditions.

7.3 Specific end use(s):

Not applicable.

8 EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational exposure limits: Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m³ (Total Dust). OSHA PEL/8-Hr TWA = 05mg/m³ (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m³. Cyclohexylamine: ACGIH TLV/8Hr TWA = 10 ppm. NIOSH REL/8Hr TWA = 10 ppm.

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.



8.2 Exposure controls

8.2.1 Appropriate engineering controls:

General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollution control regulations. Eliminate ignition sources.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection

Wear appropriate goggles to prevent eye exposure.

Hand protection

Wear appropriate gloves to prevent skin exposure.

Body protection

Wear suitable protective clothing to prevent skin exposure.

Respiratory protection

Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus.

Thermal hazards

Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. According to local regulations, Federal and official regulations.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: Powder or granules
Colour	: White to off-white
Odour	: Mild amine
Odour threshold	: Not available
pH	: Not determined
Melting point/range (°C)	: 97-105°C
Boiling point/range (°C)	: Not available
Flash point (°C)	: 350°F / 177°C
Evaporation rate	: <0.5%
Flammability (solid, gas)	: Not flammable
Ignition temperature (°C)	: Approx 360°C
Upper/lower flammability/explosive limits	: Not determined
Vapour pressure (20°C)	: Negligible
Vapour density	: Not applicable
Relative Density (25°C)	: 1.3 @ 25°C
Bulk density (kg/m³)	: 1280 kg/m³
Water solubility (g/l) at 20°C	: Insoluble
n-Octanol/Water (log Po/w)	: 4.93
Auto-ignition temperature	: 660°F / 349°C (Dust)
Decomposition temperature	: Not available
Viscosity, dynamic (mPa s)	: Not determined
Explosive properties	: Not applicable
Oxidising properties	: Not applicable



9.2. Other information:

Fat solubility(solvent- oil to be specified) etc	: Soluble in Acetone Ether Ethanol
Surface tension	: Not available
Dissociation constant in water(pKa)	: Not available
Oxidation-reduction Potential	: Not available

10 STABILITY AND REACTIVITY

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air. Loses potency with time Protect from moisture Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air. Loses potency with time Protect from moisture.

10.3 Possibility of hazardous reactions:

Under normal conditions, not hazardous reactions will occur.

10.4 Conditions to avoid:

Keep away from heat, sparks and flame.

10.5 Incompatible materials:

Reducing agents. Contact with acids. Avoid contamination of product with small amounts of water. Do not store near Insoluble Sulfur.

10.6 Hazardous decomposition products:

Carbon monoxide Oxides of nitrogen Oxides of sulfur Amines

11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Non-human toxikological data	: Not available
Method	: Not available
Dosis	: Not available
Routes of administration	: Not available
Results	: Not available
Absorption	: Not available
Distribution	: Not available
Metabolism	: Not available
Excretion	: Not available

11.2 Information on toxicological effects

Acute toxicity:

LD50(Oral, Rat)	: 5300 mg/kg
LD50(Dermal Rabbit)	: >7940 mg/kg
LD50(Inhalation, Rat)	: Not available
Skin corrosion/Irritation	: Slightly irritating to skin but not sufficient for classification.
Serious eye damage/irritation	: Slightly irritating to eyes but not sufficient for classification.
Respiratory or skin sensitization	: Slightly irritating to eyes but not sufficient for classification.
Germ cell mutagenicity	: Slightly irritating to eyes but not sufficient for classification.



Carcinogenicity : Not classified
reproductive toxicity : Not classified
STOT- single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

12 ECOLOGICAL INFORMATION

Toxicity:

Acute toxicity	Time	Species	Method	Evaluation	Remarks
LC50	7.9 mg/l	96h	Bluegill Sunfish	OECD 203	N/A
LC50	18.0 mg/l	48h	Daphnia	OECD 202	N/A
EC50	1.1 ppm.	96h	Algae	OECD 201	N/A

Persistence and degradability : 4% CO2 evolution. 4.93 log P.
Bioaccumulative potential : Not available.
Mobility in soil : Not available.
Results of PBT&vPvB assessment : Not available.
Other adverse effects : Not applicable.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. According to local regulations, Federal and official regulations.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

14 Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number:	UN3077	UN3077	UN3077
UN Proper shipping name:	Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine)	Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine)	Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine)
Transport hazard Class:	9	9	9
Packaging group:	III	III	III
Environmental hazards:	Environmentally hazardous	Environmentally hazardous	Environmentally hazardous
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	IBC 08	IBC 08	IBC 08



15 REGULATION INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization	: Not applicable.
Relevant information regarding restriction	: Not applicable.
Other EU regulations	: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.
Other National regulations	: Not applicable

16 OTHER INFORMATION

16.1 Indication of changes Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

R43 May cause sensitization by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.3 Training instructions:

Not applicable.

16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.