

Sovchem® DBTU

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Manufacturer: Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	Emergency Contact Chemtrec: 1-800-424-9300 (USA) (1)330-542-8400 (outside USA)
Trade Name(s): Sovchem® DBTU CR	Chemical Name: 1,3-dibutyl-2-thiourea
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Used as vulcanization accelerator in the rubber goods manufacturing
Issued By: Sovereign Chemical Company	Date of Issue: May 1, 2025

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012), Regulation (EC) No 1272/2008, 1907/2006/EC (REACH), and GHS.

Hazard Pictograms (CLP)	:  GHS07,  GHS08
Signal Word	: Danger
Hazard statements (CLP)	: - H312- Harmful in contact with skin, Category 4 - H317 – May cause an allergic skin reaction, Category 1 - H372- Causes damage to organs through prolonged or repeated exposure, Category 1 - H412 - Harmful to aquatic life with long lasting effects, Category 3
Precautionary statements (CLP)	: - P280 - Wear protective clothing, eye protection, face protection, protective gloves - P302+P352 - IF ON SKIN: Wash with plenty of soap and water - P312 - Call a POISON CENTER or doctor/physician if you feel unwell - P363 - Wash contaminated clothing before reuse - P501 - Dispose of contents/ container to an approved waste disposal plant - P261 – Avoid breathing dust/fume/gas/mist/vapors/spray - P272 - Contaminated work clothing should not be allowed out of the workplace - P333+ P313 - If skin irritation or rash occurs: Get medical advice/attention - P260 - Do not breathe dust/fume/gas/mist/vapors/spray - P264 - Wash hands thoroughly after handling

Results of PBT assessment : P270 - Do not eat, drink or smoke when using this product
 : P314 - Get medical advice/attention if you feel unwell
 : P273 - Avoid release to the environment
 Results of vPvB assessment : This substance does not meet the PBT criteria of REACH regulation, annex XIII
 : This substance does not meet the vPvB criteria of REACH regulation, annex XIII

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	EC No	Weight %	Classification
N,N-Dibutyl thiourea	109-46-6	203-674-6	≥ 97	H312- Harmful in contact with skin, Category 4 H317 - May cause an allergic skin reaction, Category 1 H372- Causes damage to organs through prolonged or repeated exposure, Category 1 H412 - Harmful to aquatic life with long lasting effects, Category 3

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures general: In all cases of doubt, or when symptoms persist, seek medical attention
 First-aid measures after inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell
 First-aid measures after skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician
 First-aid measures after eye contact: IF IN EYES: 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.

First-aid measures after ingestion: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention/advice.

Most important symptoms and effects, both acute and delayed

General: Harmful in contact with skin. May cause an allergic skin reaction. Causes damage to organs (thyroid) through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

General: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents: Water, dry chemical, chemical foam, or alcohol-resistant foam

Unsuitable extinguishing agents: No information available

Special hazards arising from the substance or mixture

Thermal decomposition: Thermal decomposition can lead to release of irritating and toxic gases and vapors, such as carbon oxides, sulfur oxides, nitrogen oxides

Advice for firefighters

General: Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing. Do not allow run-off from firefighting to enter drains or water course.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures: Evacuate personnel to safe areas. Keep away from heat, sparks, flame and other sources of ignition. Ensure adequate ventilation, especially in confined areas. Use personal protection recommended in Section 8. Do not touch or walk through spilled

material. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Avoid breathing dust. Wash thoroughly after handling.

Environmental precautions

General precautions: Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

General methods and materials: Clean up spills immediately, observing precautions in section 8. Sweep up, then place into a suitable container for disposal.

Reference to other sections

Sections: See Section 7 for more information
See section 8 for more information
See section 13 for more information

7. HANDLING AND STORAGE

Precautions for safe handling

General: Handle in accordance with good industrial hygiene and safety practice. Keep away from heat, sparks, flame and other sources of ignition. Ensure adequate ventilation, especially in confined areas. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Avoid generation of dust. Do not breathe dust. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

General: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Keep away from food, drink and animal feeding stuffs. Store in accordance with local regulations.

Specific end use(s)

General: No other information available

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Control Parameters

No data available

Derived No Effect Level (DNEL): No data available. No chemical safety assessment has been carried out.

Predicted No Effect Concentration (PNEC): No data available. No chemical safety assessment has been carried out.

Exposure controls

Engineering controls: Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. If air is to be recirculated, it must be filtered properly.

Personal protective equipment: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Glove material: Nitrile rubber. Glove thickness: 0.11 mm. Break through time: > 6h. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Required when dusts are generated. Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances.

Thermal hazard: No additional information available

Environmental exposure controls: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Solid, crystal powder	Melting Point/Range: 63-67°C
Color: White	Boiling Point/Range: 171- 220.24°C
Odor: Odorless	Odor threshold: Not determined

pH: Not determined	Flash point: Not applicable
Vapor Pressure: 0.00254 mmHg (QSAR)	Flammability: Not flammable
Density at 20 °C: 1 - 1.04 g/cm ³	Ignition temperature: Not applicable
Relative density: Not applicable	Decomposition temperature: > 100°C
Solubility: slightly soluble in water; soluble in alcohol, insoluble in diethyl ether	Explosive properties: Nonexplosive
Particle characteristics: D50 = 60µm	Explosion limits: Lower: Not applicable Upper: Not applicable
Oxidizing properties: No oxidizing properties	Partition coefficient (n-octanol/water): 2.75 (pH = 6.5 and pH = 12)
Loss on drying: 0.30% max	Residues on 840µm sieve: 0.00% max
Ash content: 0.30% max	Oil content: 0 – 2.0%

Other information:

No further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity:	Stable under recommended storage and handling conditions.
Chemical Stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Violent reactions possible with: Strong oxidizing agents.
Conditions to avoid:	Heat, flames and sparks. Incompatible materials.
Incompatible materials:	Strong oxidizing agents, strong acids.
Hazardous decomposition products:	Nitrogen oxides, ammonia, hydrogen cyanide, oxides of nickel.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Harmful in contact with skin

N,N-Dibutyl thiourea (CAS : 109-46-6)	
LD50 oral rat > 2000 mg/kg	LD50 oral rat > 2000 mg/kg
LC50 dermal rat 2000 mg/kg	LC50 dermal rat 2000 mg/kg

Skin corrosion/irritation:

Not classified

Serious eye damage:

Not classified

Respiratory or skin sensitization:

Category 1A (May cause an allergic skin reaction)

Germ cell mutagenicity:

Negative. Not classified

Carcinogenicity:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

Reproductive toxicity:

Not classified

STOT single exposure:

Not classified

STOT multiple exposure:

Causes damage to organs (thyroid) through prolonged or repeated exposure

Aspiration hazard:

Not classified

Endocrine disrupting properties:

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information:

No information available

12. ECOLOGICAL INFORMATION

Toxicity

Toxic to aquatic life with long lasting effects

N,N-Dibutyl thiourea (CAS : 109-46-6)	
LC50 96h - fish	17.8 mg/L Danio rerio (previous name: Brachydanio rerio)
LC50 48h - Crustacea	3.8 mg/L Daphnia magna
LC50 72h - algae	6.9 mg/L Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Persistence and degradability

Biodegradation: 0 %, 28 days. Not readily biodegradable.

Bioaccumulative potential

Partition coefficient (LogPow): 2.75 (pH = 6.5 and pH = 12). Low bioaccumulation potential.

Mobility in soil

Log Koc = 2.63

Results of PBT and vPvB assessment

The substance is not PBT/vPvB

Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other adverse effects

No other quantitative data concerning the ecological effects of this product. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products:	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging:	Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORTATION INFORMATION

UN-Number	
ADR, ADN, IMDG, IATA, RID, DOT	Not regulated
UN proper shipping name	
ADR, ADN, IMDG, IATA, RID, DOT	Not regulated
Transport hazard class(es)	
ADR, ADN, IMDG, IATA, RID, DOT	Not regulated
Packing group	
ADR, ADN, IMDG, IATA, RID, DOT	Not regulated
Environmental hazards	
Marine pollutant	Non-marine pollutant

Special precautions for user Not applicable

Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
UN "Model Regulation"

ADR, ADN, IMDG, IATA, RID, DOT Not applicable

15. REGULATORY INFORMATION

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

SARA Section 355 (extremely hazardous substances)	Not listed
SARA Section 313 (Specific toxic chemical listings)	Not listed
TSCA (Toxic Substances Control Act)	Listed
Proposition 65 (California)	
Chemicals known to cause cancer	Not listed
Chemicals known to cause reproductive toxicity for females	Not listed
Chemicals known to cause reproductive toxicity for males	Not listed
Chemicals known to cause developmental toxicity	Not listed
Carcinogenic Categories	
IARC (International Agency for Research on Cancer)	Not listed
TLV (Threshold Limit Value established by ACGIH)	Not listed
NIOSH-Ca (National Institute for Occupational Safety and Health)	Not listed
OSHA-Ca (Occupational Safety & Health Administration)	Not listed
Canada	
Canadian Domestic Substances List (DSL)	Listed
Canadian Ingredient Disclosure list (limit 0.1%)	Not listed
Canadian Ingredient Disclosure list (limit 1%)	Not listed
REACH	
REACH Candidate List	Not listed
REACH XIV List	Not listed

Chemical safety assessment: No chemicals safety assessment has been carried out

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.