Safety Data Sheet

Sovchem® DPTU

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® DPTU Powder	Chemical Name: N-N'-diphenyl thiourea
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Chemical intermediate.
Issued By: Sovereign Chemical Company According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	Date of Issue: November 1, 2021

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012) and Regulation (EC) No 1272/2008

GHS06	Skull and crossbones
Acute Tox. 2	H300 Fatal if swallowed.

The substance is classified and labeled according to the CLP regulation.
Hazard pictograms

GHS06
Signal word: Danger
Hazard-determining components of labeling: 1,3-diphenyl-2-thiourea
Hazard statements

H300	Fatal if swallowed.

Precautionary statements

P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
CAS No., Description: 102-08-9, 1,3-diphenyl-2-thiourea
Identification number(s)
EC number: 203-004-2

4. FIRST AID MEASURES

4.1 Description of first aid measures
General information
Seek immediate medical advice.
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
After inhalation
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness, place patient stably in side position for transportation.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
Nausea
Disorientation
Dizziness
Headache
Cramp
Cyanosis
Unconsciousness
Hazards
Danger of circulatory collapse.
Danger of convulsion.
Danger of cerebral edema.
Danger of disturbed cardiac rhythm.

4.3 Indication of any immediate medical attention and special treatment needed
If blue coloring appears (lips, ear-lobes, finger-nails), give oxygen treatment as quickly as possible.
Do not administer preparations of the adrenalin-ephedrine-group.
Monitor circulation, possible shock treatment.
Medical supervision for at least 48 hours.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons, unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters
Protective equipment
Wear self-contained respiratory protective device.
Wear fully protective suit.
Additional information: Cool endangered receptacles with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation.
Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions
Damp down dust with water spray.
Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

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 disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Any unavoidable deposit of dust must be regularly removed.
Keep receptacles tightly sealed.
Provide suction extractors if dust is formed.
Information about fire and explosion protection
Keep respiratory protective device available.
Dust can combine with air to form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles
Store in a cool location.

Protect from humidity and water.
Avoid storage near extreme heat, ignition sources or open flame.
Provide ventilation for receptacles
Information about storage in one common storage facility
Store away from foodstuffs.
Store away from oxidizing agents.
Do not store together with acids.
Store away from metals.
Further information about storage conditions
Store in cool, dry conditions in well-sealed receptacles.
Keep container tightly sealed.
Store receptacle in a well-ventilated area.
Protect from humidity and water.

7.3 Specific end use(s): No further relevant information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.
8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace: Not required.
DNELs No further relevant information available.
PNECs No further relevant information available.
Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls
Personal protective equipment
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Respiratory protection
Suitable respiratory protective device recommended.
Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when high concentrations are present.
For spills, respiratory protection may be advisable.
Protection of hands
The glove material must be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests, no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Material of gloves
Neoprene gloves
Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material
The exact break through time must be found out by the manufacturer of the protective gloves and must be observed.

Eye protection

Safety glasses with side shields or face shield strongly

Body protection: Impervious protective work clothing
Limitation and supervision of exposure into the environment: No further relevant information available.
Risk management measures
See Section 7 for additional information.
No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
General Information

Appearance Form: Powder. Color: White.	Change in Condition Melting Point/Melting Range: 154 °C /309 °F. Boiling Point/Boiling Range: Undetermined.
Odor: Odorless.	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	Solvent Content: Organic solvents: Not determined.
pH Value: Not applicable.	Solids content: Not determined.
Vapor pressure: Not applicable.	Flash point: Not applicable.
Density at 20 °C: 1.3 g/cm³.	Flammability (solid, gaseous): Product is not flammable.
Relative density: Not determined.	Ignition temperature: Not determined.
Vapor density: Not applicable.	Decomposition temperature: Not determined.
Evaporation rate: Not applicable.	Self-igniting: Not determined.
Solubility in / Miscibility with water Insoluble.	Danger of explosion: Product does not present an explosion hazard.
Viscosity Dynamic: Not applicable. Kinematic: Not applicable.	Explosion limits Lower: Not determined. Upper: Not determined.

9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

10.2 Chemical stability
Thermal decomposition / conditions to be avoided
No decomposition if used and stored according to specifications.
Keep away from heat and direct sunlight.
Moist conditions

10.3 Possibility of hazardous reactions
Reacts with strong oxidizing agents.
Contact with acids releases toxic gases.
Reacts with certain metals.
Toxic fumes may be released if heated above the decomposition point.
Risk of dust explosion if enriched with fine dust in the presence of air.

10.4 Conditions to avoid
Store away from oxidizing agents.
Keep away from heat and direct sunlight.

10.5 Incompatible materials: Contact with acids liberates toxic gases.

10.6 Hazardous decomposition products
Nitrogen oxides.
Carbon monoxide and carbon dioxide.
Sulfur dioxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity

LD/LC50 values relevant for classification		
102-08-9, 1,3-diphenyl-2-thiourea		
Oral	LD50	50 mg/kg (rat)

Primary irritant effect
on the skin: Slight irritant effect on skin and mucous membranes.
on the eye: Slight irritant effect on eyes.
Sensitization: Sensitizing effect by skin contact is possible by prolonged exposure.
Additional toxicological information: Toxic
Sensitization: Sensitization possible by skin contact.
Repeated dose toxicity
Repeated exposures may result in skin and/or respiratory sensitivity.
May cause damage to organs through prolonged or repeated exposure.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.
Ecotoxic effects
Remark: After neutralization a reduction of the harming action may be recognized
Additional ecological information
General notes
Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged term damage of the environment is cannot be excluded.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
After prior treatment product must be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.
Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

14. TRANSPORTATION INFORMATION

14.1 UN-Number

DOT, ADR, IMDG, IATA	UN2811

14.2 UN proper shipping name

DOT, IMDG, IATA	TOXIC SOLID, ORGANIC, N.O.S. (1,3-diphenyl-2-thiourea)
ADR	2811 TOXIC SOLID, ORGANIC, N.O.S. (1,3-diphenyl-2-thiourea)

14.3 Transport hazard class(es)

DOT

Class	6.1 Toxic substances.
Label	6.1

ADR

Class	6.1 (T2) Toxic substances.
Label	6.1

IMDG, IATA

Class	6.1 Toxic substances.
Label	6.1

14.4 Packing group

DOT, ADR, IMDG, IATA	II

14.5 Environmental hazards

Marine pollutant	No

14.6 Special precautions for user	Warning: Toxic substances.
Danger code (Kemler)	66
EMS Number	F-A, S-A.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

Transport/Additional information:

ADR	
Limited quantities (LQ)	500 g
Transport category	2
Tunnel restriction code	D/E
UN "Model Regulation"	UN2811, TOXIC SOLID, ORGANIC, N.O.S. (1,3-diphenyl-2-thiourea), 6.1, II

15. REGULATORY INFORMATION

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

United States (USA)

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

15.2 Chemical safety assessment: A Chemical Safety Assessment has not 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.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent