

# Sovchem<sup>®</sup> DPTU

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
<b>Manufacturer</b> Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	<b>Emergency Contact</b> Chemtrec: 1-800-424-9300 (USA) (1)330-542-8400 (outside USA)
<b>Trade Name(s):</b> Sovchem® DPTU Powder	<b>Synonyms:</b> Diphenyl thiourea, Thiourea, N,N'-Diphenyl 1,3-Diphenyl-2-thiourea
<b>Chemical Name:</b> N-N'-diphenyl thiourea	<b>CAS Number:</b> 102-08-9
<b>Relevant identified uses of the substance or mixture and uses advised against:</b> No further relevant information available.	<b>Application of the substance/the preparation:</b> Chemical intermediate.
<b>Issued By:</b> Sovereign Chemical Company  According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	<b>Date of Issue:</b> November 1, 2018

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
 Classification according to Regulation (EC) No 1272/2008



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

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic  
 R25 Toxic if swallowed.

Information concerning particular hazards for human and environment: Not applicable.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

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.

Hazard description

WHMIS-symbols

D1A – Very toxic material causing immediate and serious toxic effects



NFPA ratings (scale 0-4)



Health = 3  
 Fire = 0  
 Reactivity = 0

HMIS ratings (scale 0-4)



Health = 3  
 Fire = 0  
 Reactivity = 0

HMIS Long Term Health Hazard Substances: Substance is not listed.

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: CO<sub>2</sub>, 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 has to 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 has to be found out by the manufacturer of the protective gloves and has to 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/cm <sup>3</sup> .	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.

Ecotoxicological 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 has to 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 ADR	TOXIC SOLID, ORGANIC, N.O.S. (1,3-diphenyl-2-thiourea) 2811 TOXIC SOLID, ORGANIC, N.O.S. (1,3-diphenyl-2-thiourea)
14.3 Transport hazard class(es) DOT	
	
Class Label ADR	6.1 Toxic substances. 6.1
	
Class Label IMDG, IATA	6.1 (T2) Toxic substances. 6.1
	
Class Label	6.1 Toxic substances. 6.1
14.4 Packing group DOT, ADR, IMDG, IATA	II
14.5 Environmental hazards Marine pollutant	No
14.6 Special precautions for user Danger code (Kemler) EMS Number	Warning: Toxic substances. 66 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