



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS  
2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous  
Products Regulation (HPR)

Issuing Date 10/10/2023

Revision date 10/10/2023

Revision Number 1

## 1. Identification

### Product identifier

**Product Name** Thiourea

### Other means of identification

**Product Code(s)** RM00391

**UN number or ID number** UN2811

**Synonyms** Thiocarbamide

**CAS No** 62-56-6

### Recommended use of the chemical and restrictions on use

**Recommended use** Chemical synthesis Laboratory chemicals Industrial use

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Wego Chemical Group LP  
239 Great Neck Road  
Great Neck NY 11021  
+1 (516) 487 3510  
regulatory@wegochem.com

### Emergency telephone number

**Emergency Telephone** (ChemTel) +1-800 255-3924; INTL +1-813 248-0585

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 3
Carcinogenicity	Category 2
Reproductive toxicity	Category 2

**Appearance** Crystals

**Physical state** Solid

**Odor** No information available

### Label elements

#### **Danger**

#### **Hazard statements**

Toxic if swallowed  
Suspected of causing cancer  
Suspected of damaging fertility or the unborn child

Toxic to aquatic life with long lasting effects



#### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves, protective clothing, eye protection and face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid release to the environment

#### Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention  
Specific treatment (see supplemental first aid instructions on this label)

#### Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor  
Rinse mouth

#### Spill

Collect spillage

#### Precautionary Statements - Storage

Store locked up

#### Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant

#### Other information

No information available.

### 3. Composition/information on ingredients

#### Substance

**Synonyms** Thiocarbamide.

**Formula** CH4N2S

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Thiourea	62-56-6	>99	-	-

### 4. First-aid measures

#### Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

**Inhalation** Remove to fresh air.

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.

#### **Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	No information available.
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#### **Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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### **5. Fire-fighting measures**

<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , alcohol-resistant foam or water spray.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	Containers may explode when heated.
<b>Hazardous combustion products</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides. Nitrogen oxides (NO <sub>x</sub> ). Oxides of sulfur.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **6. Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.

#### **Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

### **7. Handling and storage**

#### **Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep out of the reach of children. Store locked up. Avoid exposure to incompatibilities.

## 8. Exposure controls/personal protection

**Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing.

**Respiratory protection** Use appropriate respiratory protection.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Physical state** Solid  
**Appearance** Crystals  
**Color** white  
**Odor** No information available  
**Odor threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>Melting point / freezing point</b>	175 - 177 °C / 347 - 350.6 °F	None known
<b>Initial boiling point and boiling range</b>	No data available	None known
<b>Flash point</b>	No data available	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known

<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	No data available	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available

**10. Stability and reactivity**

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Avoid generation of dust. Heat, flames and sparks. Incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Strong acids. Strong bases. Acrylates. Aldehyde. Hydrogen peroxide. Nitric acid.
<b>Hazardous decomposition products</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

**11. Toxicological information****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Toxic if swallowed. (based on components).

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	No information available.
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**Acute toxicity****Numerical measures of toxicity**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Thiourea 62-56-6	= 125 mg/kg ( Rat )	> 2800 mg/kg ( Rat )	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Thiourea 62-56-6	-	Group 3	Reasonably Anticipated	X

**Legend****IARC (International Agency for Research on Cancer)**

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**NTP (National Toxicology Program)**

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Thiourea 62-56-6	EC50: =6.8mg/L (96h, Desmodesmus subspicatus) EC50: 3.8 - 10mg/L (72h,	LC50: >600mg/L (96h, Pimephales promelas) LC50: =10000mg/L (96h, Brachydanio rerio)	-	EC50: =35mg/L (48h, Daphnia magna) NOEC: =1.8 mg/L (21d, Daphnia magna)

	Desmodesmus subspicatus)			
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**Persistence and degradability** No information available.

**Bioaccumulation**

**Component Information**

Chemical name	Partition coefficient
Thiourea 62-56-6	-0.92

**Mobility in soil** No information available.

**Other adverse effects** No information available.

**13. Disposal considerations**

**Disposal methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**14. Transport information**

**DOT**

**UN number or ID number** UN2811  
**Proper shipping name** Toxic solids, organic, n.o.s.  
**Transport hazard class(es)** 6.1  
**Packing group** III  
**Reportable quantity (lbs)** Thiourea: RQ (lb)= 10.00  
**Reportable quantity (lbs) (calculated)** Thiourea: RQ (lb)= 10.00  
**Reportable Quantity (RQ)** (Thiourea: RQ (kg)= 4.54)  
**Reportable quantity (kg) (calculated)** Thiourea: RQ (kg)= 4.54  
**DOT Marine Pollutant** I  
**Marine pollutant** Thiourea  
**Description** UN2811, Toxic solids, organic, n.o.s. (Thiourea), 6.1, III, Marine pollutant  
**Special Provisions** IB8, IP3, T1, TP33  
**Emergency Response Guide Number** 154

**TDG**

**Notes** **No components found suitable for Marine Pollutant Name.**  
**UN number or ID number** UN2811  
**UN proper shipping name** Toxic solid, organic, n.o.s.  
**Transport hazard class(es)** 6.1  
**Packing group** III  
**Special Provisions** 16  
**Description** UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III

**MEX**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III
Special Provisions	223, 274

ICAO (air)**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III
Special Provisions	A3, A5

IATA**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
ERG Code	6L
Special Provisions	A3, A5
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III

**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
EmS-No.	F-A, S-A
Special Provisions	223, 274
Marine pollutant	P
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III, Marine pollutant

RID**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Classification code	T2
Special Provisions	274, 614
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III, Environmentally Hazardous

ADR**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1
Packing group	III
Classification code	T2
Tunnel restriction code	(E)
Special Provisions	274, 614
Description	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III, (E), Environmentally Hazardous

ADN**Notes****No components found suitable for Marine Pollutant Name.**

UN number or ID number	UN2811
UN proper shipping name	Toxic solid, organic, n.o.s.
Transport hazard class(es)	6.1

<b>Packing group</b>	III
<b>Classification code</b>	T2
<b>Special Provisions</b>	274, 614, 802
<b>Description</b>	UN2811, Toxic solid, organic, n.o.s. (Thiourea), 6.1, III, Environmentally Hazardous
<b>Equipment Requirements</b>	PP, EP

## 15. Regulatory information

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

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

**TSCA** Complies.

Chemical name	CAS No.	US TSCA Inventory listing	US TSCA inactive/active designation
Thiourea	62-56-6	Present	Active

<b>DSL/NDSL</b>	Complies. DSL.
<b>EINECS/ELINCS</b>	Complies.
<b>ENCS</b>	Complies.
<b>IECSC</b>	Complies.
<b>KECL</b>	Complies.
<b>PICCS</b>	Complies.
<b>AIIC</b>	Complies.
<b>NZIoC</b>	Complies.

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AIIC** - Australian Inventory of Industrial Chemicals

**NZIoC** - New Zealand Inventory of Chemicals

#### US Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
Thiourea - 62-56-6	0.1

##### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate

classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Thiourea 62-56-6	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Thiourea - 62-56-6	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Thiourea 62-56-6	X	X	X

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 0	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> *	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Key literature references and sources for data used to compile the SDS**

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGl(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

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**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**