

Sovchem[®] ETU

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer: Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	Emergency Contact: Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
Trade Name(s): Sovchem [®] ETU Oiled Powder	Synonyms: ETU, 2-mercaptoimidazoline, 2-imidazolidinethione
Chemical Name: Ethylene thiourea	CAS Number: 96-45-7
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Chemicals for synthesis.
Issued By: Sovereign Chemical Company	SDS Number: 1843 Date of Issue: June 24, 2013 Revision Number: 2 (supersedes August 17, 2010) Change(s): Revision to GHS requirement




2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture



Classification according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H360D.

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU. H360.

	H360:	May damage fertility or the unborn child
	GHS08 Repr. 1B H360D	Health hazard May damage the unborn child.
	GHS07 Acute Tox. 4	H302 Harmful if swallowed.

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

	T; Toxic Repr. Cat.2	May cause harm to the unborn child.
	R61:	May cause harm to the unborn child.

	Xn; Harmful R22	Harmful if swallowed.
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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



GHS07



GHS08

Signal word: Danger

Hazard-determining components of labeling: ethylene thiourea

Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation:

H360D.

H360 May damage fertility or the unborn child. (USA)

H302 Harmful if swallowed.

H360D May damage the unborn child.

Precautionary statements

P281 Use personal protective equipment as required.

P264 Wash thoroughly after handling.

P202 Do not handle until all safety precautions have been read and understood.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P330 Rinse mouth.

Additional information: Restricted to professional users.

Hazard description

WHMIS-symbols

D1B - Toxic material causing immediate and serious toxic effects

D2A - Very toxic material causing other toxic effects

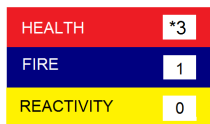


NFPA ratings (scale 0-4)



Health = 3
Fire = 1
Reactivity = 0

HMIS ratings (scale 0-4)



Health = *3
Fire = 1
Reactivity = 0

* - Indicates a long-term health hazard from repeated or prolonged exposures.

HMIS Long Term Health Hazard Substances: 96-45-7, ethylene thiourea

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: 96-45-7, ethylene thiourea

Identification number(s)

EC number: 202-506-9

Index number: 613-039-00-9

Dangerous components

CAS: 8042-47-5 EINECS: 232-455-8	White Mineral Oil  Xn R65  Asp. Tox. 1, H304	<5.0%
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3. FIRST AID MEASURES

4.1 Description of first aid measures

General information

Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders

Dizziness

Hazards: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.

If necessary oxygen respiration treatment.

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 fog or haze.

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.

Isolate area and prevent access.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Do not flush with water or aqueous cleansing agents.

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

Open and handle receptacle with care.

Prevent formation of dust.

Use only in well ventilated areas.

Information about fire and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles

Store in a cool location.

Avoid storage near extreme heat, ignition sources or open flame.

Use only receptacles specifically permitted for this substance/product.

Information about storage in one common storage facility

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

Store away from reducing agents.

Further information about storage conditions

Store in cool, dry conditions in well-sealed receptacles.

Protect from humidity and water.
Store receptacle in a well-ventilated area.

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

96-45-7 ethylene thiourea

REL (USA) Use in encapsulated form; See Pocket Guide App. A.

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:

The usual precautionary measures are to be adhered to when handling chemicals.

Pregnant women should strictly avoid inhalation or skin contact.

Do not inhale dust / smoke / mist.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Respiratory protection



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

Protection of hands

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

Body protection: Impervious protective 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: 200-203 °C (392-397 °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: Not applicable	Solids content: Not determined
Vapor Pressure: Not applicable	Flash point: Not applicable
Density at 20 °C: 1.45 g/cm ³	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 at 20 °C: 19 g/l.	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.

10.3 Possibility of hazardous reactions

Reacts with oxidizing agents.

Toxic fumes may be released if heated above the decomposition point.

10.4 Conditions to avoid: Keep away from heat and direct sunlight.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products

Sulphur oxides (SO_x)

Carbon monoxide and carbon dioxide

Nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification: 96-45-7 ethylene thiourea Oral LD50 1832 mg/kg (rat)

Primary irritant effect

on the skin: No irritant effect.

on the eye: No irritant effect.

Sensitization: Sensitizing effect by skin contact is possible by prolonged exposure.

Additional toxicological information: Harmful.

Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Repr. 1B

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: The material is harmful to the environment.

12.2 Persistence and degradability: biodegradable

12.3 Bioaccumulative potential: Does not accumulate in organisms.

12.4 Mobility in soil: No further relevant information available.

Ecotoxicological effects

Remark: Harmful to water fleas.

Additional ecological information

General notes

The declarations are valid for the component with the highest toxicological risk.

The product may not be released into the environment without control.

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

Harmful to aquatic organisms

Water Hazard Class (Self-classification) in the concentrate.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

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.
 Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.




The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORTATION INFORMATION

14.1 UN-Number DOT, ADR, IMDG, IATA	UN3077
14.2 UN proper shipping name DOT (Ethylenethiourea) ADR IMDG IATA	Environmentally hazardous substances, solid, n.o.s. 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Ethylenethiourea) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Ethylenethiourea), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Ethylenethiourea)
14.3 Transport hazard class(es) DOT  Class Label ADR, IMDG, IATA   Class Label	9 Miscellaneous dangerous substances and articles. 9 9 Miscellaneous dangerous substances and articles. 9
14.4 Packing group DOT, ADR, IMDG, IATA	III
14.5 Environmental hazards Marine pollutant Special marking (ADR) Special marking (IATA)	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
 · · Transport/Additional information: This product is non-hazardous for transport for packages less than 10 lbs.
 ADR: Limited quantities (LQ) 5 kg
 UN "Model Regulation" UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III

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)	96-45-7 ethylene thiourea
TSCA (Toxic Substances Control Act)	Substance is listed.
Proposition 65 (California)	
Chemicals known to cause cancer	96-45-7 ethylene thiourea
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	96-45-7 ethylene thiourea
Carcinogenic Categories	
EPA (Environmental Protection Agency)	Substance is not listed.
IARC (International Agency for Research on Cancer)	96-45-7 ethylene thiourea. 3
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	96-45-7 ethylene thiourea
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%)	96-45-7 ethylene thiourea
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.

Relevant phrases

H304 May be fatal if swallowed and enters airways.

R65 Harmful: may cause lung damage if swallowed.

Abbreviations and acronyms:



Safety Data Sheet

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