

**Safety Data Sheet**  
**According to Regulation (EU) No. 1907/2006, Annex II,**  
**According to Regulation (EU) No. 1272/2008,**  
**Amended by REGULATION (EU) No 453/2010**

**ETU**

Printing date: 16/02/2015

Version 1.1

Revision date: 16/02/2015

**1 Identification of the substance and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: ETU  
Additional identification: Ethylene thiourea  
Identification of the product: CAS# 96-45-7; EC# 202-506-9  
Index Number: 613-039-00-9  
REACH registration No.: Not available

**1.2 Relevant identified uses of the substance and uses advised against:**

**1.2.1 Identified uses:**

Used as rubber accelerator.

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier(Only representative): Chemical Inspection & Regulation Service Limited  
Supplier(Manufacturer): Shanghai Rokem Industrial Co., Ltd  
Address: 9D, Double Dove Great Tower, 438, Pudian Road. Shanghai, 200122, P.R.CHINA  
Contact person(E-mail): -  
Telephone: +86-21-50812951  
Fax: +86-21-58818728

**1.4 Emergency telephone Number:**

+353 41 980 6916

Available outside office hours? YES  NO

**2 Hazards Identification**

**2.1 Classification of the substance**

**2.1.1 Classification:**

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Acute Tox. 4	H302
Repr. 1B	H360 (D)

For full text of H- phrases: see section 2.2.

67/548/EEC	
Hazards characteristics	R-Phrases
Repr. Cat. 2	R61
Xn	R22

For full text of R- phrases: see section 16.

**2.1.2 The most important adverse effects**

**2.1.2.1 The most important adverse physicochemical effects:**

Not applicable.

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**2.1.2.2 The most important adverse human health effects:**

May damage the unborn child

**2.1.2.3 The most important adverse environmental effects:**

Not applicable.

**2.2 label elements**

**Hazard Pictograms:**



**Signal Word(S):**

Danger

**Hazard Statement:**

H360D: May damage the unborn child.

H302: Harmful if swallowed.

**Precautionary Statement:**

P201: Obtain special instructions before use.

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

P264: Wash ..... thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P281: Use personal protective equipment as required.

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

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

P405: Store locked up.

P501: Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

**2.3 Other hazards**

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

**3 Composition/information on ingredients**

**Substance/Mixture:** Substance

**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Ethylene thiourea	N/A	96-45-7	202-506-9	>97%

**4 First aid measures**

**4.1 Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

**4.1.1 In case of inhalation:**

Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

**4.1.2 In case of skin contact:**

Remove any contaminated clothing or shoes. Wash affected areas thoroughly with soap and water for at least 15 minutes. If

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irritation persists or any sign of tissue damage is apparent, seek medical attention.

**4.1.3 In case of eyes contact:**

Rinse immediately and as long as possible with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation persists

**4.1.4 In case of ingestion:**

Rinse mouth. Give water to drink.

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

May cause an allergic skin reaction.

**4.3 Indication of any immediate medical attention and special treatment needed**

If skin irritation or rash occurs, get medical advice/attention.

**5 Fire-Fighting measures**

**5.1 Extinguishing media:**

**Suitable extinguishing media:** Water fog, carbon dioxide, foam, dry chemical.

**Unsuitable extinguishing media:** Not available.

**5.2 Special hazards arising from the substance or mixture**

Toxic emissions may result if product is involved in a fire. Fire produces highly toxic sulfur dioxide gas

**5.3 Advice for fire-fighters:**

Firefighters must wear fire resistant protective equipment. Wear self contained breathing apparatus and protective gloves.

**6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

**6.1.1 For non-emergency personnel:**

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapor or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

**6.1.2 For emergency responders:**

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

**6.2 Environmental Precautions:**

Avoid disposing into drainage/sewer system or directly into the aquatic environment. keeping away from drains, surface-and ground-water and soil.

**6.3 Methods for Containment and Cleaning up:**

Isolate area and remove sources of friction, impact, heat, low level electrical current, and RF energy. Isolate spill and stop leak where safe. Remove ignition sources and work with non-sparking tools. Scoop up and remove. Do NOT spread spilled product with water.

**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 information on disposal.

**6.5 Additional information:**

Wet clean or vacuum up solids.

Don't use a brush or compressed air for cleaning surfaces or clothing.

Clear spills immediately.

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**7 Handling and storage**

**7.1 Precautions for safe handling:**

**7.1.1 Protective measures:**

Do not breathe dusts/vapor. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Take precautionary measures against static discharges.

**7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material.

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

Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Do not store near Insoluble Sulfur. Slowly degrades and releases irritating vapors under warm, humid conditions.

**7.3 Specific end use(s):**

Not applicable.

**8 Exposure control/personal protection**

**8.1 Control parameters:**

**8.1.1 Occupational exposure limits:** Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m<sup>3</sup> (Total Dust). OSHA PEL/8-Hr TWA = 05mg/m<sup>3</sup> (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m<sup>3</sup>. Cyclohexylamine: ACGIH TLV/8Hr TWA = 10 ppm. NIOSH REL/8Hr TWA = 10 ppm.

**8.1.2 Additional exposure limits under the conditions of use:** Not available.

**8.1.3 DNEL/DMEL and PNEC-Values:** Not available.

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls:**

General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations. Eliminate ignition sources.

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

Eye/face protection           Wear appropriate goggles to prevent eye exposure.

Hand protection               Wear appropriate gloves to prevent skin exposure.

Body protection               Wear suitable protective clothing to prevent skin exposure.

Respiratory protection       Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus.

Thermal hazards               Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:**

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste.

According to local regulations, Federal and official regulations.

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**9 Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance:	Powder or granules
Colour:	White to off-white
Odour:	slight inherent odor
Odour threshold:	Not available
pH:	Not determined
Melting point/range (°C):	~203°C
Boiling point/range (°C) :	Not available
Flash point (°C) :	~252°C
Flammability (solid, gas);	Not flammable
Vapour pressure (20°C) :	Negligible
Bulk density (kg/m <sup>3</sup> ) :	Not determined
Water solubility (g/l) at 20°C :	Slightly soluble

**9.2. Other information:**

Fat solubility(solvent- oil to be specified) etc:	Soluble in Ethanol
Surface tension:	Not available
Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available

**10 Stability and reactivity**

**10.1 Reactivity:**

The substance is stable under normal storage and handling conditions.

**10.2 Chemical stability:**

Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air. Loses potency with time Protect from moisture Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air. Loses potency with time Protect from moisture.

**10.3 Possibility of hazardous reactions:**

Under normal conditions, not hazardous reactions will occur.

**10.4 Conditions to avoid:**

Keep away from heat, sparks and flame.

**10.5 Incompatible materials:**

Reducing agents. Contact with acids. Avoid contamination of product with small amounts of water. Do not store near Insoluble Sulfur.

**10.6 Hazardous decomposition products:**

Carbon monoxide Oxides of nitrogen Oxides of sulfur Amines

**11 Toxicological information**

**11.1 Toxicokinetics, metabolism and distribution**

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<b>Non-human toxicological data:</b>	Not available
<b>Method:</b>	Not available
<b>Dosis:</b>	Not available
<b>Routes of administration:</b>	Not available
<b>Results:</b>	Not available
<b>Absorption:</b>	Not available
<b>Distribution:</b>	Not available
<b>Metabolism:</b>	Not available
<b>Excretion:</b>	Not available

**11.2 Information on toxicological effects**

**Acute toxicity:**

LD50( Oral, Rat):	1832 mg/kg
LD50(Dermal Rabbit):	N/A
LD50(Inhalation, Rat):	Not available

**Skin corrosion/irritation:** Slightly irritating to skin but not sufficient for classification.

**Serious eye damage/irritation:** Slightly irritating to eyes but not sufficient for classification.

**Respiratory or skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**reproductive toxicity:** Not classified

**STOT- single exposure:** Not classified

**STOT-repeated exposure:** Not classified

**Aspiration hazard:** Not classified

**12 Ecological information**

**Toxicity:**

Acute toxicity to fish: LC<sub>50</sub> = 7500 mg/l/96h (*Poecilia reticulata*);  
 Acute toxicity to daphnia: EC<sub>50</sub> = 26.4 mg/l/48h (*Daphnia magna*);  
 Acute toxicity to algae: EC<sub>50</sub> = 6600 mg/l/96h (*Chlorella pyrenoidosa*);

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<b>Persistence and degradability:</b>	N/A
<b>Bioaccumulative potential:</b>	Not available.
<b>Mobility in soil:</b>	Not available.
<b>Results of PBT&amp;vPvB assessment:</b>	Not available.
<b>Other adverse effects:</b>	Not applicable.

**13 Disposal considerations**

**13.1 Waste treatment methods**

Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste.  
 According to local regulations, Federal and official regulations.

**13.2 Product / Packaging disposal:**

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations. .

**14 Transport information**

	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
<b>UN-Number:</b>	UN2811	UN2811	UN2811
<b>UN Proper shipping name:</b>	TOXIC SOLID, ORGANIC, N. O.S. (Ethylene thiourea)	TOXIC SOLID, ORGANIC, N. O.S. (Ethylene thiourea)	TOXIC SOLID, ORGANIC, N. O.S. (Ethylene thiourea)
<b>Transport hazard Class:</b>	6.1	6.1	6.1
<b>Packaging group:</b>	III	III	III

**15 Regulation information**

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

**Relevant information regarding authorization:** Not applicable.  
**Relevant information regarding restriction:** Not applicable.  
**Other EU regulations:** Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.  
**Other National regulations:** Not applicable  
**Chemical Safety Assessment has been carried out?** YES  NO

**16 Other information**

**16.1 Indication of changes** Version 1.1 Amended by EU No 453/2010

**16.2 Relevant R- phrases (number and full text):**

R61 May cause harm to the unborn child  
 R22 Harmful if swallowed.

**16.3 Training instructions:**

Not applicable.

**16.4 Further information:**

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This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

**16.5 Notice to reader:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.