SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name:	**Westco ETU 80**

Other means of identification:

Product Description:	A soft easy dispersing pellet form of Ethylene Thiourea in a proprietary polymer blend binder. This product is screened through a 150 mesh screen during production. Its primary use is an accelerator in rubber compounds, especially those based on polychloroprene elastomers.
Synonyms:	80 wt% ethylene thiourea(ETU); "Ethylene Thiourea (ETU) 80% Proprietary polymer binder 20% "

Recommended use of the chemical and restrictions on use:

Product Use/Restriction:	Used as an accelerator in rubber compounds.

Chemical distributor, or other responsible party Name, address, and telephone number:

Distributor Name:	Western Reserve Chemical Corporation
Address:	4837 Darrow Road Stow, OH 44224 USA
General Phone Number:	330 650 2244
General Fax Number:	330 650 2255

Emergency phone number::

Emergency Phone Number:	Chemtrec 1 800 424 9300 USA
Website:	www.wrchem.com

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Pictograms:

Signal Word: DANGER!

GHS Class:
* Acute Toxicity Oral, Category 4.
* Reproductive Toxicity, Category 1B.
* Carcinogenicity, Category 2B.

Hazard Statements:
* May damage the unborn child.
* Harmful if swallowed.

Precautionary Statements:
* Obtain special instructions before use.
* Use personal protective equipment as required.
* IF exposed or concerned: Get medical advice/attention.
* IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
* Store locked up.
* Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Eye:	Contact may cause watering, redness, and stinging sensation.
Skin:	Contact may cause itching and redness. Prolonged or repeated contact may cause burns.
Inhalation:	Contact is unlikely to cause any inhalation hazard due to physical form.
Ingestion:	Ingestion may cause gastrointestinal irritation, diarrhea, nausea and vomiting.
Carcinogenicity:	IARC (International Agency for Research on Cancer) classifies ETU in Group 2B (possible Human Carcinogen). California Proposition 65 classifies ETU as a carcinogen.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.

polymeric binder	Proprietary	Approx.: 20% by weight
Ethylene thiourea (ETU)	96-45-7	Approx.: 80% by weight

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	In case of eye contact rinse with plenty of water.
Skin Contact:	After contact with skin, wash immediately with plenty of water and soap.
Inhalation:	After inhalation of product during processing remove patient to the fresh air at once.
Ingestion:	Seek medical advice immediately if swallowed.

Most important symptoms/effects, acute and delayed:

Other First Aid:	In all cases of doubt, or when symptoms persist, seek medical attention.

Indication of immediate medical attention and special treatment needed:

Note to Physicians:	Treat symptomatically and supportively.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media:	Foam, dry powder and water

Specific hazards arising from the chemical:

Hazardous Combustion Byproducts:	Irritating or toxic gases may be generated from decomposition/combustion products. Under low oxygen conditions, carbon, monoxide may be produced. Section 6 Accidental Release

Special protective equipment and precautions for fire-fighters:

Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Notes :	Ignition temperature: Not determined

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions:	* Evacuate personnel to safe areas. * Avoid contact with skin, eyes and clothing. * Wear personal protective equipment.

Environmental precautions:

Environmental Precautions:	Dispersion pellets are defined as a "significant material" by the U.S. EPA (40CFR 122.26) which requires that any plant that may expose the pellet to storm water obtain a storm water permit. Pellets found in storm water runoff are subject to EPA Regulations with the potential for substantial penalties.

Methods and materials for containment and cleaning up:

Spill Cleanup Measures:	Take up mechanically. Fill into labelled, sealed containers. No special measures against fire or explosion required.

Methods and materials for containment and cleaning up:

Methods for containment:	Shovel or sweep up. Recover the product and place in a dry labelled container.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling:	Exhaust ventilation is required in the working area in consideration of other chemical additives used in rubber processing. No special measures against fire or explosion are required.
Hygiene Practices:	Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities:

Storage:	Store in a cool, dry place.

Specific end use(s):

Work Practices:	Safety showers and eye wash stations should be available.
Notes :	Storage/Transport Temperature, degrees F (C) 40 – 90 (4.4 – 32.2)
	Avoid storage with strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Appropriate engineering controls:

Engineering Controls:	Provide local exhaust and/or general ventilation to maintain exposure below regulatory and recommended limits.

Individual protection measures:

Eye/Face Protection:	Chemical goggles Eyewash station in work area
Skin Protection Description:	Protective clothing if skin contact is expected.
Hand Protection Description:	Use protective gloves and protective clothing. Glove material: nitrile rubber; Layer thickness: 0.11 mm; Breakthrough time: > 480 Min.
Respiratory Protection:	Not required but use of any respirator will be compliant to OSHA's Respiratory Protection Standard, 29CFR1910.134.
PPE Pictograms:	

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Form: Solid, granules
Color:	Grey-white
Odor:	Slight inherent odour
Melting Point:	Not Applicable
Density:	Approx. 1,27 g/cm3
Vapor Pressure:	not determined
pH:	pH value: Not applicable
Flash Point:	Not Applicable
Explosive Properties:	Explosive limits: Not determined

9.2. Other information:

Notes :	Ignition temperature: Not determined
	Tested in accordance with

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity:	Hazardous reactions: No hazardous reactions observed.

Chemical Stability:

Chemical Stability:	Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

Hazardous Polymerization:	Will not occur.

Conditions To Avoid:

Conditions to Avoid:	* Strong oxidizing agents. * Avoid high temperature condition. * Excessive heat may cause decomposition.

Incompatible Materials:

Incompatible Materials:	Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:

Special Decomposition Products:	No hazardous decomposition products observed.
	Thermal decomposition: After prolonged heating, decomposition starts at approx. 200 deg C.
Notes :	Further information: Considerable volatilization and sublimation is able to occur in processing.

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Acute Toxicity:	Acute Oral toxicity: LD50 = 1832 mg/kg (rat) (The Merck Index); Acute Inhalation toxicity: No data available. Acute Dermal toxicity: No data available.
Eye:	Eyes, rabbit: slightly irritating.
Skin:	Skin, rabbit: slightly irritating.
Ingestion:	The followings apply to ethylene thiourea (ETU): Lethal dose (LD50): 710 mg/kg (oral, rat)
Sensitization:	Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Mutagenicity:	No relevant information available.
Reproductive Toxicity:	May damage the unborn child.

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

Ecotoxicity:	Acute toxicity to fish: LC50 = 7500 mg/l/96h (Poecilia reticulata); Acute toxicity to daphnia: EC50 = 26.4 mg/l/48h (Daphnia magna); Acute toxicity to algae: EC50 = 6600 mg/l/96h (Chlorella pyrenoidosa);
Environmental Stability:	Do not allow to discard into water, wastewater or soil.

Persistence and degradability:

Biodegradation:	Degradation: 0 % after 28 day; Result: other: not readily biodegradable; Method: OECD Test Guideline 301C

Bioaccumulative potential:

Bioaccumulation:	Log Kow = -0.66. BCFs of <0.2 to 0.3 and <1.8 were determined in carp (Cyprinus carpio) for ethylene thiourea at concentrations of 1.0 and 0.1 ppm exposed for 6 weeks. Tests indicate the potential for bio-accumulate in aquatic organisms is low.

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	Waste materials: Incinerate only in officially approved incinerator. Completely empty containers: Can be disposed of in local or commercial Incineration plants. Spilled product is considered an RCRA Hazard Waste per 40 CFR 261.33. RCRA Waste number is U116. Waste must be disposed of by a licensed Disposal

SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Not Regulated.
DOT Pictograms:	
IATA Shipping Name:	Not Regulated.
IATA Pictograms:	
IMDG Shipping Name :	Not Regulated.
ADR Shipping Name :	Not Regulated.
RID Shipping Name :	Not Regulated.
ICAO Shipping Name:	Not Regulated.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status:	All components of this product are listed in the TSCA inventory of Chemicals Substances.
SARA:	Under Title III, Section 313 this product is classified as an Acute/Chronic health hazard
CERCLA Section 302:	If an accidental spill occurs, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response Compensation and Reauthorization Act. See Section 4 on Accidental Release
Risk Phrases:	* R22 - Harmful if swallowed. * R61 - May cause harm to the unborn child.

Safety Phrase:

* S24 - Avoid contact with skin.
* S25 - Avoid contact with eyes.
* S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
* S 3/7 - Keep container tightly closed in a cool place.

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	2
HMIS Fire Hazard:	1
HMIS Reactivity:	0
HMIS Personal Protection:	J

Health Hazard	**2**
Fire Hazard	**1**
Reactivity	**0**
Personal Protection	**J**

SDS Revision Date: July 15, 2015

Notes : Important Note: This information relates to the specific product described herein and may not be valid for this material when used in combination with other raw materials. The information provided is without warranty regarding its accuracy or completeness. The information may not be valid under all conditions. The user has the final responsibility for determining the suitability of the product in a given application.