

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Westco DETU
 Synonyms : 1,3-diethyl-2-thiourea / Accelerator DETU / N,N'-diethylthiourea

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Accelerator
 Rubbers
 Restrictions on use : No additional information available

1.3. Supplier

Western Reserve Chemical Corporation
 4837 Darrow Road
 Stow, OH 44224 - USA
 T 330 650 2244 - F 330 650 2255
www.wrchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 800 424 9300 USA

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Acute toxicity (oral), Category 4	H302 Harmful if swallowed.
Acute toxicity (dermal), Category 4	H312 Harmful in contact with skin.
Serious eye damage/eye irritation, Category 1	H318 Causes serious eye damage.
Skin sensitisation, Category 1	H317 May cause an allergic skin reaction.
Carcinogenicity, Category 2	H351 Suspected of causing cancer.
Specific target organ toxicity — Repeated exposure, Category 1	H372 Causes damage to organs through prolonged or repeated exposure.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

H302+H312 - Harmful if swallowed or in contact with skin
 H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H351 - Suspected of causing cancer.
 H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS) :

P201 - Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
 P302+P352 - If on skin: Wash with plenty of water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 - If exposed or concerned: Get medical advice/attention.
 P310 - Immediately call a poison center or doctor.
 P312 - Call a poison center/doctor if you feel unwell
 P314 - Get medical advice/attention if you feel unwell.

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P321 - Specific treatment (see supplemental first aid instruction on this label).
P322 - Specific treatment (see supplemental first aid instruction on this label)
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS_US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS classification
1,3-diethyl-2-thiourea	(CAS-No.) 105-55-5	95 – 99	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Skin Sens. 1B, H317 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412
White mineral oil	(CAS-No.) 8042-47-5	< 2	Asp. Tox. 1, H304

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Allow the victim to rest.

First-aid measures after skin contact : Wash skin thoroughly with mild soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed. Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities. Diarrhea. Nausea. Vomiting.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : If there is a fire close by, use suitable extinguishing agents.

Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Burning produces irritating, toxic and noxious fumes. Carbon oxides (CO, CO₂). Nitrogen oxides. Sulphur oxides.

5.3. Special protective equipment and precautions for fire-fighters

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- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin, eyes and clothing. Avoid creating or spreading dust. Do not breathe dust. Use personal protective equipment as required.

6.1.1. For non-emergency personnel

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Refer to section 8.2.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Recover the product by vacuuming, shovelling or sweeping. Avoid generating dust.
- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid creating or spreading dust. Do not breathe dust. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container. Keep container closed when not in use.
- Incompatible products : Strong oxidizers.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Westco DETU
No additional information available
White mineral oil (8042-47-5)
No additional information available
1,3-diethyl-2-thiourea (105-55-5)
No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Avoid creating or spreading dust. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation.
- Environmental exposure controls : Prevent leakage or spillage. Prevent contaminated water run-off.

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear suitable gloves resistant to chemical penetration. Dust impervious gloves. Nitrile rubber. Minimum glove thickness is 0.11 mm. Breakthrough time is > 480 minutes.

Eye protection:

Chemical goggles

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Dust mask. Approved organic vapour respirator

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder. Translucent.
Colour	: white
Odour	: odourless
Odour threshold	: No data available
pH	: No data available
Melting point	: 76 – 78 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 185 °C
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.12 g/cm ³
Solubility	: Water: 38 g/l
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified

ATE (oral)	319.192 mg/kg bodyweight
ATE (dermal)	1111.111 mg/kg bodyweight

White mineral oil (8042-47-5)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l/4h

1,3-diethyl-2-thiourea (105-55-5)

LD50 oral rat	316 mg/kg
LD50 dermal rat	> 1000 (\leq 2000) mg/kg
ATE (oral)	316 mg/kg bodyweight
ATE (dermal)	1100 mg/kg bodyweight

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

White mineral oil (8042-47-5)

NOAEL (chronic, oral, animal/male, 2 years)	> 1200 mg/kg bodyweight No carcinogenic potential observed.
Additional information	Chronic dermal: mouse: Lack of significant effects. Chronic inhalation to various animal species at 5 and 100 mg/m ³ doses: no adverse effects.

1,3-diethyl-2-thiourea (105-55-5)

IARC group	3 - Not classifiable
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Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

White mineral oil (8042-47-5)

NOAEL (subacute, oral, animal/male, 28 days)	> 1500 mg/kg bodyweight (dog)
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1,3-diethyl-2-thiourea (105-55-5)

NOAEL (oral, rat, 90 days)	7.35 mg/kg bodyweight/day 49 d
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Likely routes of exposure : Inhalation. Skin and eye contact.

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Symptoms/effects	: Causes damage to organs through prolonged or repeated exposure. Suspected of causing cancer.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Harmful in contact with skin.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed. Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities. Diarrhea. Nausea. Vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

White mineral oil (8042-47-5)	
LC50 fish 1	3841 mg/l Oncorhynchus mykiss
1,3-diethyl-2-thiourea (105-55-5)	
LC50 fish 1	910 mg/l 96 h Danio reio
EC50 crustacea	193 mg/l 48 h Daphnia magna

12.2. Persistence and degradability

Westco DETU	
Persistence and degradability	May cause long-term adverse effects in the environment.
1,3-diethyl-2-thiourea (105-55-5)	
Persistence and degradability	Not readily biodegradable.
Biodegradation	3 % 28 d

12.3. Bioaccumulative potential

Westco DETU	
Bioaccumulative potential	Not established.
1,3-diethyl-2-thiourea (105-55-5)	
Log Kow	0.57
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

Westco DETU	
Ecology - soil	Not established.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated.

Transport by sea

Not regulated.

Air transport

Not regulated.

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

White mineral oil (8042-47-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

1,3-diethyl-2-thiourea (105-55-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
1,3-diethyl-2-thiourea(105-55-5)	U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

Data sources : TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>. European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>. ACGIH (American Conference of Government Industrial Hygienists). Manufacturer Information. Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. OSHA 29CFR 1910.1200 Hazard Communication Standard. NFPA 400-2013 Hazardous Materials Code.

Other information : None.

Full text of H-statements:

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

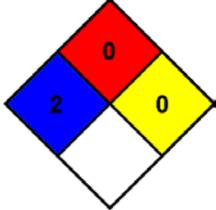
	CAS (Chemical Abstracts Service) number
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population

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	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.	
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.	
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.	
Hazard Rating		
Health	: 2 Moderate Hazard - Temporary or minor injury may occur * - Chronic (long-term) health effects may result from repeated overexposure	
Flammability	: 0 Minimal Hazard - Materials that will not burn	
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.	
Personal protection	: J J - Splashed goggles, Gloves, Synthetic apron, Dust & vapor respirator	

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.