

SDS Thiourea

Date of Issue: 30/06/2026

Expiry: 01/07/2031

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name

ECP Limited

Address:

39 Woodside Ave, Northcote, Auckland , New Zealand

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Product	Thiourea			Code	52401, 8591, XOOOT5ADSJ	
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
62-56-6	HSR003323	2811	6.1	III	No	No

Recommended use: Laboratory Investigations

GHS Label elements, including precautionary statements

Pictogram



Signal word **Warning**

Hazard statement(s)

H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards - none

Environmental Protection Authority (New Zealand)

HSNO Classifications

6.1C (All)

Acutely toxic

6.3A Irritating to the skin

6.4A Irritating to the eye

6.5B Contact sensitisers

6.8B Suspected human reproductive or developmental toxicants

6.9B(ALL) Harmful to human target organs or systems

6.9B (O) Harmful to human target organs or systems

9.1B (All) Very ecotoxic in the aquatic environment

9.1B (C) Very ecotoxic in the aquatic environment

9.1B (A) Very ecotoxic in the aquatic environment

9.3B Ecotoxic to terrestrial vertebrates

3. Composition/information on ingredients

3.1 Substances

Molecular weight: 76.12 g/mol

CAS No.: 62-56-6

Component	Classification	Concentration
Thiourea		
CAS No.: 62-56-6	Acute Tox. 4; Carc. 2; Repr. 2; Aquatic Chronic 2; H302, H351, H361d, H411	<= 100 %

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), sulphur oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.

Storage class (TRGS 510): Non Combustible Solids

8. Exposure controls/personal protection

8.1 Control parameters

No exposure limits have been set for this substance.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: crystalline

Colour: white

b) Odour

Odourless

c) pH

5.0 - 7 at 50 g/l at 20 °C

d) Melting point/freezing point

176 - 178 °C

e) Relative density

1.405 g/cm³ at 20 °C

f) Water solubility

137 g/l at 20 °C

g) Partition coefficient: n-octanol/water

log Pow: -0.919 at 20 °C

h) Bulk density

640 kg/m³

10. Stability and reactivity

10.1 Chemical stability

Stable under recommended storage conditions.

10.2 Incompatible materials

Strong oxidizing agents, strong acids, strong bases, hydrogen peroxide, sulphur oxides.

10.3 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions:

Carbon oxides, nitrogen oxides (NO_x), sulphur oxides.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1,750 mg/kg

LC50 Inhalation - Rat - 4 h - > 170 mg/m³

LD50 Dermal - Rabbit - > 2,800 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation

Respiratory or skin sensitisation

Maximisation Test - Guinea pig

Does not cause skin sensitisation.

in vitro assay

Result: Not mutagenic in Ames Test

Carcinogenicity

Limited evidence of carcinogenicity in animal studies.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans

Reproductive toxicity

Suspected human reproductive toxicant

Additional Information

Liver - Irregularities - Based on Human Evidence

12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - Danio rerio (zebra fish) - 10.000 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 5.6 - 18.0 mg/l - 48 h

Toxicity to algae

EC50 - Desmodesmus subspicatus (green algae) - 6.8 mg/l - 96 h

12.2 Persistence and degradability

Biodegradability Biotic/Aerobic - Exposure time 31 d

Result: < 1 % - Not readily biodegradable.

12.3 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.4 Other adverse effects

Toxic to aquatic life with long lasting effects.

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	2811	2811	2811
14.2	UN Proper Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Environmentally hazardous substance, solid, n.o.s.
14.3	Transport Hazard Class	6.1	6.1	6.1
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	Yes	Yes	Yes
14.6	Special precautions for user	None		

15. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and

any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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