SAFETY DATA SHEET	In accordance with Regulation 1907/2006 (REACH), amended by Regulation 453/2010	
THIOUREA	1.00 / 20141118	

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Product identifier

Name:	Thiourea
Synonyms :	Thiocarbamide
CLP Annex I, index nr.	612-082-00-0
EC/EINECS No. :	200-543-5
CAS No.	62-56-6
Registration nr :	

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Intended use :	intermediates, retardant
1.2.2 Uses advised against	no information available

1.3 Details of the supplier of the safety datasheet

Supplier :

GENTROCHEMA BV
Esdoornlaan 19a, NL-4254 AT Sleeuwijk, Nederland
Tel. : +31.183.304422 Fax : +31.183.304069
E-mail : wl@gentrochema.nl Website : www.gentrochema.nl

1.4 Emergency telephone nr :

during office hours (08:30 - 17:00) : +31.183.304422
After office hours (*only for health professionals*) : +44.870.600.6266

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance

2.1.1. Classification according to Regulation 1272/2008 EC

Endpoint	Hazard category	Hazard statement
Acute toxicity - oral:	Acute Tox. 4	H302: Harmful if swallowed.
Reproductive Toxicity:	Repr. 2	H360: Suspected of damaging fertility or the unborn child. Route of exposure : oral
Carcinogenicity:	Carc. 2B	H351: Suspected of causing cancer. Route of exposure : oral
Hazards to the aquatic environment (long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

2.2.1. Labelling according to Regulation 1272/2008

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Product identifier : Thiourea

Index Nr : 612-082-00-0

Hazard Pictogram(s):



Signal word : Warning

Hazard Statement(s):

H302: Harmful if swallowed.
H351: Suspected of causing cancer
H361d: Suspected of damaging fertility or the unborn child
H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273: Avoid release to the environment.
P281: Use personal protective equipment as required
P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor/…/if you feel unwell.
P330: Rinse mouth.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P405: Store locked up.

2.3. Other hazards

PBT/vPvB criteria: no

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical characterization: Thiourea, min. 99 % $(NH_2)_2CS$, with non hazardous additions

Composition/information on ingredients :

EINECS nr : 200-543-5
CAS nr : 62-56-6
Index No. 612-082-00-0
Substance of Very High Concern : no

4. FIRST AID MEASURES

4.1 Description of first aid measures

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- After inhalation :	If inhaled, remove to fresh air. Get medical attention for severe cases.
- After skin contact :	In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before re-use
- After eye contact :	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- After swallowing :	Rinse out mouth. If conscious, drink plenty of water. Induce vomiting immediately. Get medical attention immediately.

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

Suspected of causing cancer. Suspected of damaging fertility or the unborn child

4.3 Indication of any immediate medical attention and special treatment needed

No additional information

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, foam, dry powder
Unsuitable extinguishing media: High volume water jet

5.2 Special hazards arising from the substance

In certain fire conditions, toxic gases, like Carbon/Sulphur oxides or Nitrous gases may occur.

5.3 Advice for fire-fighters

Wear self contained breathing apparatus and fully chemical protective suit.
Avoid release of the extinguishing media to the environment.

5.4 Further information

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment and emergency procedures
Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

Avoid release to the environment.

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6.3 Methods and materials for containment and cleaning up

Clean up promptly by scoop or vacuum.
Avoid dust formation.

6.4 Reference to other sections

For safe use : refer to section 7
For personal protection : refer to section 8.
For disposal : refer to section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at machinery.
For personal protection see below.

Advice on protection against fire and explosion
Keep away from heat and sources of ignition.
Avoid dust formation.

Dust explosion class: St1

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry and cool place.
Store under lock and key or in a way that only skilled persons have access to it.
Suitable materials: polyethylene

Further information: Protect against light.

German storage class: 11 - Combustible Solids

7.3 Specific end uses

No additional information

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No information available

8.2 Exposure controls

Hygiene measures
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.
Keep away from food, drink and animal feeding stuffs.

Personal protection :

- Hand protection : Use chemical resistant Polychloroprene gloves. See standard : EN-374-3:2003.

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- Eye/face protection : Use tight fitting safety glasses. See standard: EN 166:2001.
- Skin/body protection : Wear appropriate protective clothing.
- Respiratory protection : If exposed to dust: Wear appropriate respirator, Filter P2 (white).

Environmental protection:

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Other information :

After handling, take a shower. Working clothes should not be taken home.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 information on basic physical and chemical properties

Appearance:	organic, colourless/white solid
Odour:	odourless
Odour threshold:	Not determined
PH-value :	Not determined
Alkalinity or acidity :	Not determined
Boiling point :	Not relevant
Melting point :	> 170 °C
Flash point:	Not relevant
Evaporation rate:	Not relevant
Flammability :	Not highly flammable
Vapour pressure :	Negligible
Vapour density :	Not relevant
Relative Density :	1.405
Solubility in water :	approx. 117.5 g/l (at 20°C)
Solubility in other solvents :	Not relevant
Partition coefficient n-octanol/water:	Not relevant
Auto ignition temperature:	> 240 °C
Decomposition temperature :	Not relevant
Viscosity :	Not relevant
Explosive properties	Not relevant
Oxidising properties :	Not relevant

9.2. other information

No additional information

10. STABILITY AND REACTIVITY

10.1 Reactivity

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10.2 Chemical stability

Stable under circumstances as advised in section 7.

10.3 Possibility of hazardous reactions

Do not mix with strong oxidizing agents, strong acids, strong bases.

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10.4 Conditions to avoid

Keep away from strong oxidizing agents, strong acids, strong bases.

10.5 Incompatible materials

Do not mix with strong oxidizing agents, strong acids, strong bases.

10.6. Hazardous decomposition products

Sulphur oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

No information available

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Carc. Cat. 2B, Repr. Cat. 2

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No additional information

12.3 Bio accumulative potential

No

12.4 Mobility in soil

No additional information

12.5 Results of PBT and vPvB assessment

Not relevant

13. DISPOSAL CONSIDERATIONS

Product/packing : Observe all federal, state and local environmental regulations.
See directives 75/442/EEC and 2006/12/EC.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment. Refer to special instructions/ Safety data sheets.

14. TRANSPORT INFORMATION

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Landtransport (RID/ADR) :



ADR/GGVSEB class: 9
Label : fish and tree
Packing group: III
UN nr. : 3077
Tunnel restriction code E
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)

Sea transport (IMDG) :



IMDG class: 9
UN nr. : 3077
Label : 9
Packing group : III
EMS: F-A, S-F
Marine Pollutant : yes
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)

Air transport (ICAO-IATA):



ICAO/IATA class: 9
UN/ID Number: 3077
Label: fish and tree
Packing group: III
IATA_C: ERG-Code 9L / IATA_P: ERG-Code 9L
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)

15. REGULATORY INFORMATION

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

State regulations

Observe all federal, state and local regulations.

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Information about employment restrictions

Employment restrictions for young workers (94/33/EC)
Employment restrictions concerning pregnant and lactating women must be observed. (92/85/EC)
Employment restrictions concerning women of child-bearing age must be observed

Water hazard class :

6A (Netherlands)

additional regulations and restrictions

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15.2 Chemical Safety report

A Chemical Safety Assessment has not been carried out

16. OTHER INFORMATION

relevant Hazard statements & R Phrases

Not applicable

Consulted literature:	C&L Inventory database
Version :	Nr. 1.00 of 18.11.2012.
Changes per section compared to last version :	first version
Name of composer and manager in charge :	Mr W. van Loon. (wl@gentrochema.nl./tel +31 183 304422)
Printing date :	18-11-2014

Used abbreviations

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PNEC: Predicted No-Effect Concentration (REACH)
DMEL: Derived Minimum Effect Level
LOAEC: lowest observed adverse effect concentration
NOEC: No Observed Effect Concentration
NOEL: No observed Effect Level
IC50: Inhibitory concentration, 50 percent
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
EC50: Effect concentration, 50 percent

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