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SAFETY DATA SHEET

according to Regulation (EU) No. 453/2010

Cleaning Solution Thiourea

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code 51340070, 51340082**Synonyms** None.

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

Use of the Substance/Preparation Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	Mettler-Toledo AG Process Analytics Im Hackacker 15 CH-8902 Urdorf Schweiz Tel: +41-44-729 62 11 Fax: +41-44-729 66 36 Email: process.hotline@mt.com
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1.4. Emergency telephone number +1-800-535 50 53 (Info Trac, 24 hrs)**Revision Date** 27.05.2013**Version** 6

2. Hazards identification

Causes severe skin burns and eye damage. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Harmful to aquatic life with long lasting effects.

2.1. Classification of the substance or mixture

NFPA Ratings (Scale 0-4):

HEALTH=3

FLAMMABILITY=0

REACTIVITY=1

SPECIAL=ACID

HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate

3=Serious 4=Severe):

HEALTH=3

FLAMMABILITY=0

REACTIVITY=1

PROT. EQUIPMENT=C (Safety Glasses, Gloves, Protective apron)

Classification according to Regulation (EC) No. 1272/2008 (GHS/CLP)

Carcinogenicity, Cat. 2, H351

Reproductive toxicity, Cat. 2, H361

Skin corrosion/irritation, Cat. 1A, H314

Hazardous to the aquatic environment, chronic, Cat. 3, H412

Dispose of contents/container according to local and national regulations.

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word

Danger

Hazard Statements

H314: Causes severe skin burns and eye damage.

H351: Suspected of causing cancer.

H361: Suspected of damaging fertility or the unborn child.

H412: Harmful to aquatic life with long lasting effects.

Precautionary statements

P201: Obtain special instructions before use.

P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Additional advice

Dispose of contents/container according to local and national regulations.

Cleaning Solution Thiourea

V. 6 / 27.05.2013

Print Date 05.07.2013

Page 2/10

METTLER TOLEDO

GHS product identifier

thiourea; thiocarbamide, CAS-No. 62-56-6

2.3. Other hazards

No information available.

3. Composition/information on ingredients

Chemical characterization

Solution.

Components		CLP Classification		CAS	REACH No.
deionisiertes Wasser	90% - 95%				
thiourea; thiocarbamide	5% - 10%	Carc. 2 H351, Repr. 2 H361, Acute Tox. 4 H302, Aquatic Chronic 2 H411		62-56-6	
Hydrochloric acid		Skin Corr. 1B H314, STOT SE 3 H335 [Skin Corr. 1B H314: C ≥ 25 % ; Skin Irrit. 2 H315: 10 % ≤ C < 25 % ; Eye Irrit. 2 H319: 10 % ≤ C < 25 % ; STOT SE 3 H335: C ≥ 10 %]			

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

4. First aid measures

4.1. Description of first aid measures

Inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products. Consult a physician for severe cases.

Skin contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye contact

Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

Ingestion

Rinse mouth. Consult a physician for severe cases.

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

If you feel unwell, seek medical advice (show the label where possible).

4.3. Indication of any immediate medical attention and special treatment needed None known.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use dry chemical, CO₂, water spray or alcohol foam.

Extinguishing media which must not be used for safety reasons None.

5.2. Special hazards arising from the substance or mixture Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds.

5.3. Advice for firefighters

Special protective equipment for firefighters Standard procedure for chemical fires. In the event of fire, wear self contained breathing apparatus. Wear protective suit.

Specific methods Water mist may be used to cool closed containers.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel Ensure adequate ventilation. Use personal protective equipment. Sweep up to prevent slipping hazard. Avoid contact with skin and eyes.

Advice for emergency responders Handle in accordance with good industrial hygiene and safety practice.

6.2. Environmental precautions Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up Soak up with inert absorbent material. Keep in suitable and closed containers for disposal.

6.4. Reference to other sections See chapter 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Practice care and caution to avoid skin contact and inhalation of vapours or mists if generated. Avoid contact with skin and eyes.
7.2. Conditions for safe storage, including any incompatibilities	Store in original container.
7.3. Specific end use(s)	No information available.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	No data is available on the product itself.
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8.2. Exposure controls

Occupational exposure controls	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.
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Personal protection equipment

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator with combination filter for vapour/particulate.
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Hand protection	The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Hydrofluoric acid-resistant and solvent-resistant gloves (gloves made of VITON*).
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Eye protection	Safety glasses with side-shields conforming to EN 166.
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Skin and body protection	Long sleeved clothing.
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Thermal hazards	No special measures required.
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Environmental exposure controls	Prevent product from entering surface water or sewage.
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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Liquid.
Colour	Colourless.
Odour	None.
Odour Threshold	No information available.
pH:	1
Melting point/range:	No information available.
Boiling point/range:	No information available.
Flash point:	No information available.
Evaporation Rate:	No information available.
Flammability:	No information available.
Explosion limits:	No information available.
Vapour pressure:	No information available.
Vapor density:	No information available.
Relative density:	No information available.
Water solubility:	completely miscible
Partition coefficient (n-octanol/water):	No information available.
Autoignition temperature:	No information available.
Decomposition temperature:	No information available.
Viscosity:	No information available.
Combustion/explosion hazards:	not hazardous
Oxidizing properties:	None

9.2. Other information

10. Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Not required.
10.5. Incompatible materials	None.
10.6. Hazardous decomposition products	None under normal use.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data is available on the product itself. thiourea; thiocarbamide (CAS 62-56-6) LD50/oral 1750 mg/kg. (IUCRID)
Skin corrosion/irritation	Corrosive.
Serious eye damage/eye irritation	Corrosive.
Respiratory / Skin Sensitisation	CAS 62-56-6: May cause sensitization of susceptible persons by skin contact. (Sittig, M. Handbook of Toxic and Hazardous Chemicals and Carcinogens, 1985. 2nd ed. Park Ridge, NJ: Noyes Data Corporation, 1985., p. 859)
Carcinogenicity	CAS 62-56-6: Possible human carcinogen. (DHHS/National Toxicology Program; Eleventh Report on Carcinogens: 1,2,3-Thiourea (62-56-6) (January 2005). Available from, as of July 31, 2009: http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s175thor.pdf)
Germ cell mutagenicity	No data available.
Reproductive toxicity	CAS 62-56-6: Experiments have shown reproductive toxicity effects on laboratory animals. (Acta Morphol Acad Sci Hung. 1980; 28(3):259-67. [Acta morphologica Academiae Scientiarum Hungaricae)
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.
Human experience	No data available.
Information on likely routes of exposure	dermal
Symptoms related to the physical, chemical and toxicological characteristics	May cause sensitisation by skin contact. Suspect reproductive hazard - contains material which may injure unborn child.

12. Ecological information

12.1. Toxicity	No data is available on the product itself. May change pH of waters.
Thiourea (CAS 62-56-6) Ecotoxicity - Freshwater Fish - Acute Toxicity Data	96 h LC50 Pimephales promelas: >600 mg/L 96 h LC50 Brachydanio rerio: 10000 mg/L

Cleaning Solution Thiourea

Ecotoxicity - Water Flea - Acute Toxicity Data	48 h EC50 Daphnia magna: 35 mg/L
Ecotoxicity - Freshwater Algae - Acute Toxicity Data	96 h EC50 Desmodesmus subspicatus: 6.8 mg/L 72 h EC50 Desmodesmus subspicatus: 3.8 - 10 mg/L
Ecotoxicity - Earthworm - Acute Toxicity Data	28 Days LC50 Eisenia foetida: >1000 mg/kg [soil dry weight] 28 Days LC50 Eisenia foetida: 3550 mg/kg [soil dry weight]
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No information available.
12.6. Other adverse effects	No information available.

13. Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Dispose of as unused product.

14. Transport information

ADR/RID	Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Hydrochloric acid) UN No 3265. Class 8. Packing group III. ADR/RID-Labels 8. Classification code C3. Risk No. 80. Limited quantity 5 L. Tunnel code E
IMO	Proper shipping name Corrosive liquid, acidic, organic, n.o.s. (Hydrochloric acid) UN No 3265. Class 8. Packing group III. ADR/RID-Labels 8. Limited quantity 5 L. EmS F-A, S-B. Marine Pollutant no

Cleaning Solution Thiourea



ICAO	<p>Proper shipping name Corrosive liquid, acidic, organic, n.o.s. (Hydrochloric acid) UN No 3265. Class 8. Packing group III. Packing instruction (passenger aircraft): 852 (5 L). Packing instruction (LQ): Y841 (1 L). Packing instruction (cargo aircraft): 856 (60 L).</p>
Inland navigation ADN	<p>Proper shipping name CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Hydrochloric acid) UN No 3265. Class 8. Packing group III. ADN danger 8+(N1, N2, N3, CMR, F oder S).</p>
Further Information	None.

15. Regulatory information

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

Regulatory Information	<p>NFPA Ratings (Scale 0-4): HEALTH=3 FLAMMABILITY=0 REACTIVITY=1 SPECIAL=ACID HMIS Ratings (Scale: 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe): HEALTH=3 FLAMMABILITY=0 REACTIVITY=1 PROT. EQUIPMENT=C (Safety Glasses, Gloves, Protective apron)</p> <p>The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP).</p>
15.2. Chemical safety assessment	Not required.

16. Other information

Key or legend to abbreviations and acronyms	None.
Key literature references and sources for data	Information taken from reference works and the literature. Sources of key data used to compile the Safety Data Sheet: IUCLID; Toxnet..
Classification procedure	Calculation method.

Cleaning Solution Thiourea



Full text of phrases referred to under sections 2 and 3

H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.
H351: Suspected of causing cancer.
H361: Suspected of damaging fertility or the unborn child.
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.