

METTLER TOLEDO SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2020/878)

Cleaning solution Thiourea/HCl

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Cleaning solution Thiourea/HCl
Synonyms Diaphragm cleaner (9892)
Product code 52118031, 30045062, 51350102

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

Use of the Substance/Mixture Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification Mettler-Toledo GmbH
Im Langacher 44
CH-8606 Greifensee
Switzerland
Tel: +41 22 567 53 22
Fax: +41 22 567 53 23
Email: ph.lab.support@mt.com

1.4. Emergency telephone number (24-Hour-Number): GBK GmbH +49 6132 84463

Revision date 12.12.2022

Version GHS 4 (Previous versions: GHS 3)

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Carcinogenicity, Cat. 2, H351
Reproductive toxicity, Cat. 2 (d), H361d
Corrosive to metals, Cat. 1, H290
Hazardous to the aquatic environment, chronic, Cat. 3, H412

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

2.2. Label elements



Signal Word	Warning
Hazard Statements	H290: May be corrosive to metals. H351: Suspected of causing cancer. H361d: Suspected of damaging the unborn child. H412: Harmful to aquatic life with long lasting effects.
Precautionary statements	P201: Obtain special instructions before use. P280: Wear protective gloves and eye protection. P273: Avoid release to the environment. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P390: Absorb spillage to prevent material damage.
Supplemental information	None.
Product identifier	thiourea; thiocarbamide, CAS-No. 62-56-6, EC-No. 200-543-5
Contents of package < 125 ml	 Warning H290: May be corrosive to metals. H351: Suspected of causing cancer. H361d: Suspected of damaging the unborn child. H412: Harmful to aquatic life with long lasting effects. P390: Absorb spillage to prevent material damage.
2.3. Other hazards	None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Components		CLP Classification	Product identifier
Deionised water	90% - 95%	-	CAS-No.: 7732-18-5 EC-No.: 231-791-2
thiourea; thiocarbamide	5% - 10%	Carc. 2 H351, Repr. 2 H361 (d), Acute Tox. 4 H302 (ATE=1750mg/kg bw), Aquatic Chronic 2 H411	CAS-No.: 62-56-6 EC-No.: 200-543-5 Index-No: 612-082-00-0

Hydrochloric acid	< 0.5%	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 %]	CAS-No.: 7647-01-0 EC-No.: 231-595-7 Index-No: 017-002-01-X
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For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

SECTION 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 while 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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry extinguishing agent or carbon dioxide.

Unsuitable extinguishing media 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Ensure adequate ventilation. Use personal protective equipment. Sweep up to prevent slipping hazard. Avoid contact with skin and eyes.
For emergency responders	Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment. Sweep up to prevent slipping hazard.

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 (Plastic container of HDPE).

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

SECTION 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. Storage class 8.
7.3. Specific end use(s)	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Hydrochloric acid (CAS 7647-01-0)	
UK - Workplace Exposure Limits (WELs) - STELs	5 ppm STEL (aerosol mist and gas) 8 mg/m ³ STEL (aerosol mist and gas)
UK - Workplace Exposure Limits (WELs) - TWAs	1 ppm TWA (aerosol mist and gas) 2 mg/m ³ TWA (aerosol mist and gas)

EU - Occupational Exposure (2000/39/EC) - First List of Indicative Occupational Exposure Limit Values - STELs	10 ppm STEL 15 mg/m ³ STEL
EU - Occupational Exposure (2000/39/EC) - First List of Indicative Occupational Exposure Limit Values - TWAs	5 ppm TWA 8 mg/m ³ TWA

8.2. Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

Personal protection equipment

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment. Respirator with combination filter for vapour/particulate (EN 14387).

Hand protection Gloves made of Nitril. The selected protective gloves have to satisfy the specifications of Regulation (EU) No. 2016/425 and the standard EN 374 derived from it. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection Safety glasses with side-shields conforming to EN166.

Skin and body protection Long sleeved clothing.

Thermal hazards No special measures required.

Environmental exposure controls Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Colourless.
Odour	Odourless.
Melting point/ freezing point:	Not determined.
Boiling point or initial boiling point / range:	Not determined.
Flammability:	Not determined.
Lower and upper explosion limit:	Not determined.
Flash point:	does not ignite
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
pH:	1.1
Kinematic viscosity:	Not determined.
Solubility:	completely miscible (Water)

Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density:	1.02
Relative vapour density:	Not determined.
Particle characteristics:	Not applicable.

9.2. Other information

Other safety characteristics	No information available.
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SECTION 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.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	No data is available on the product itself. Deionised water (CAS 7732-18-5) Oral LD50 Rat > 90 mL/kg (FOOD_JOURN) thiourea (CAS 62-56-6) LD50/oral 1750 mg/kg. (IUCLID) Hydrochloric acid (CAS 7647-01-0) Dermal LD50 Rabbit > 5010 mg/kg (JAPAN_GHS) Inhalation LC50 Rat = 1.68 mg/L 1 h(JAPAN_GHS) Oral LD50 Rat 238 - 277 mg/kg (JAPAN_GHS)
Skin corrosion/irritation	May irritate skin.
Serious eye damage/eye irritation	Contact with eyes may cause irritation.
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	Suspected of causing cancer. CAS 62-56-6: Possible human carcinogen. (DHHS/National Toxicology Program; Eleventh Report on Carcinogens: 1,2,3- Thiourea (62-56-6) (January 2005).
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Suspected of damaging the unborn child.
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.

11.2. Information on other hazards

Information on likely routes of exposure	dermal
Endocrine disrupting properties	May cause endocrine disruption.
Other information	No data available.

SECTION 12: Ecological information

12.1. Toxicity No data is available on the product itself. May change pH of waters.

thiourea; thiocarbamide (CAS 62-56-6)

Ecotoxicity - Earthworm - Acute Toxicity Data	LC50 28 Days Eisenia foetida >1000 mg/kg [soil dry weight] (IUCLID)
Ecotoxicity - Freshwater Algae - Acute Toxicity Data	LC50 28 Days Eisenia foetida 3550 mg/kg [soil dry weight] (IUCLID) EC50 96 h Desmodesmus subspicatus 6.8 mg/L (IUCLID)
Ecotoxicity - Freshwater Fish - Acute Toxicity Data	EC50 72 h Desmodesmus subspicatus 3.8 - 10 mg/L (IUCLID) LC50 96 h Pimephales promelas >600 mg/L (IUCLID)
Ecotoxicity - Water Flea - Acute Toxicity Data	LC50 96 h Brachydanio rerio 10000 mg/L (IUCLID) EC50 48 h Daphnia magna 35 mg/L (IUCLID)

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. Endocrine disrupting properties May cause endocrine disruption.

12.7. Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products Dispose of as hazardous waste in compliance with local and national regulations. EWC waste disposal No: 07 07 01 *.

Contaminated packaging Dispose of as unused product.

SECTION 14: Transport information

14.1. UN number or ID number UN 1789

14.2. UN proper shipping name HYDROCHLORIC ACID, SOLUTION

14.3. Transport hazard class(es) 8

14.4. Packing group III

14.5. Environmental hazards Marine pollutant: No.

14.6. Special precautions for user Not applicable.

14.7. Maritime transport in bulk according to IMO instruments Not applicable.

UN Model Regulations

ADR/RID UN 1789.
Proper shipping name: HYDROCHLORIC ACID, SOLUTION.
Class 8.
Packing group III.
ADR/RID-Labels 8.
Classification code C1.
Hazard identification no. 80.
Limited quantity 5 L.
Excepted quantity E1.
Transport category 3.
Tunnel restriction code (E).

IMDG UN 1789.
Proper shipping name: HYDROCHLORIC ACID, Solution.
Class 8.
Packing group III.
IMDG-Labels 8.
Limited quantity 5 L.
Excepted quantity E1.
EmS F-A, S-B.
Marine pollutant: No.

IATA

UN 1789.
 Proper shipping name: Hydrochloric acid, Solution.
 Class 8.
 Packing group III.
 IATA label 8.
 Packing instruction (passenger aircraft): 852 (5 L).
 Packing instruction (LQ): Y841 (1 L).
 Packing instruction (cargo aircraft): 856 (60 L).

Inland navigation ADN

UN 1789.
 Proper shipping name: HYDROCHLORIC ACID, SOLUTION.
 Class 8.
 Packing group III.
 ADN labels 8.
 Classification code C1.
 Limited quantity 5 L.
 Excepted quantity E1.

Further Information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Regulatory Information**

The product is classified and labelled in accordance with EC directives or respective national laws.
 The product is classified and labelled according to Regulation (EC) No. 1272/2008.
 Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

thiourea; thiocarbamide (CAS 62-56-6)	
TEDX (The Endocrine Disruption Exchange) - Potential Endocrine Disruptors	Present
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75.
EU - REACH (1907/2006) - List of Registered Substances	Present
Hydrochloric acid (CAS 7647-01-0)	
EU - Biocides (528/2012/EU) - Active Substances	2 - Disinfectants and algacides not intended for direct application to humans or animals (Commission Directive 2012/16/EU)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Expiry Dates	Expiration date: April 30, 2024 Product type 2 (listed under EC Number 231-595-7)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Minimum Purity	999 g/kg 2 (listed under EC Number 231-595-7)
EU - Biocides (98/8/EC) - Annex I - Active Substances - Product Type	Product type 2 (listed under EC Number 231-595-7)

EU - Biocides (98/8/EC) - Annex I - Active Substances - Specific Provisions	Member States shall assess, where relevant for the particular product, those uses or exposure scenarios and those risks to human populations and to environmental compartments that have not been representatively addressed in the Union level risk assessment. Member States shall ensure that authorisations of products for non-professional use are subject to the packaging being designed to minimize user exposure, unless it can be demonstrated in the application for product authorisation that risks for human health can be reduced to acceptable levels by other means (listed under EC Number 231-595-7)
EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	Use restricted. See item 75. (U, 5)
EU - REACH (1907/2006) - List of Registered Intermediates	Present ([231-595-7])
EU - REACH (1907/2006) - List of Registered Substances	Present
UN (United Nations) - Convention on Illicit Traffic in Narcotics & Psychotropics - Table II Substances	Present (listed under HS Code: 2806.10)

15.2. Chemical safety assessment

Not required.

SECTION 16: Other information

Revision Note

Safety datasheet sections which have been updated: 2, 3, 8, 9, 11, 12, 13, 14, 15.

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
EWC: European Waste catalogue code

Key literature references and sources for data

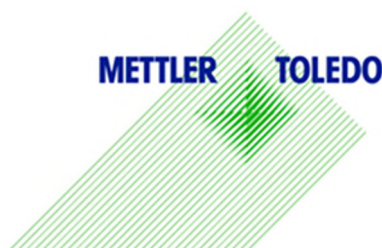
Information taken from reference works and the literature. Sources of key data used to compile the Safety Data Sheet: IUCLID; Toxnet.

Classification procedure

Calculation method.

Full text of phrases referred to under sections 2 and 3

H290: May be corrosive to metals.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.
H351: Suspected of causing cancer.
H361d: Suspected of damaging 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 and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.