SAFETY DATA SHEET (SDS)  
according to 1907/2006/EC, Article 31  
Printing Date: 27.10.2017  
Version number 10  
Revision: 27.10.2017  

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

1.1 Trade name: 5560 Cleaner  
1.2 Relevant identified uses of the substance or mixture and uses advised against  
   Solder  
   Professional use of solder  

1.3 Details of the supplier of the safety data sheet  
Manufacturer/Supplier:  
Kester Inc.  
800 West Thorndale Avenue  
Itasca, IL 60143  
Tel 00+1 + 630 616 4000  

ITW Specialty Materials (Suzhou) Co., Ltd.  
Hengqiao Road, Wujiang Economic Development Zone  
Suzhou, Jiangsu Province, China 215200  
Tel +86 512 82060807  

Kester GmbH  
Ganghofer Strasse 45  
D-82216 Gerlinrienden Germany  
Tel +49 (0) 8142 4785 0  

Further information obtainable from:  
Product Compliance: EHS_Kester@kester.com  

1.4 Emergency telephone number:  
CHEMTREC 24-Hour Emergency Response  Telephone Number: (800) 424-9300  
CHEMTREC 24-Hour Emergency Response (Outside US & Canada)  Telephone Number: (703) 527-3887  

SECTION 2: Hazards identification  

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  

GHS08 health hazard  
Repr. 2  H361  Suspected of damaging fertility or the unborn child.  

GHS05 corrosion  
Skin Corr. 1B  H314  Causes severe skin burns and eye damage.  
Eye Dam. 1  H318  Causes serious eye damage.  

GHS07  
Acute Tox. 4  H302  Harmful if swallowed.  
Aquatic Chronic 3  H412  Harmful to aquatic life with long lasting effects.  

2.2 Label elements  
Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.  

(Continued on page 2)
Trade name: 5560 Cleaner

Hazard pictograms

GHS05  GHS07  GHS08

Signal word Danger

Hazard-determining components of labelling:
- thiourea
- Glycolic Acid
- Tetrafluoroboric acid
- nitrilotrimethylenetriis(phosphonic acid)
- ammonium chloride

Hazard statements
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H361 Suspected of damaging fertility or the unborn child.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P311 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- 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.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Chemical components</th>
<th>CAS: 62-56-6</th>
<th>thiourea</th>
<th>Acute Tox. 3, H301</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 200-543-5</td>
<td></td>
<td></td>
<td>Repr. 2, H361</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycolic Acid</td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>EINECS: 201-180-5</td>
<td></td>
<td></td>
<td>Acute Tox. 4, H302</td>
</tr>
<tr>
<td>CAS: 16872-11-0</td>
<td>Tetrafluoroboric acid</td>
<td></td>
<td>Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>EINECS: 240-898-3</td>
<td></td>
<td></td>
<td>Acute Tox. 4, H302; Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>CAS: 12125-02-9</td>
<td>ammonium chloride</td>
<td></td>
<td>3-5%</td>
</tr>
<tr>
<td>EINECS: 235-186-4</td>
<td></td>
<td></td>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>CAS: 6419-19-8</td>
<td>nitrilotrimethylenetriis(phosphonic acid)</td>
<td></td>
<td>1-3%</td>
</tr>
<tr>
<td>EINECS: 229-146-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade Secret</td>
<td>Organic Acid</td>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>

(Continued on page 3)
SECTION 4: First aid measures

4.1 Description of first aid measures
General information:
Immediately remove any clothing soiled by the product.
Follow general first aid procedures.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing:
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Seek immediate medical advice.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
In case of fire, the following can be released:

5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

6.2 Environmental precautions:
Do not allow product to reach sewage system or any water course.
Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Store in cool, dry place in tightly closed receptacles.
Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: Store in a cool location.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep container tightly sealed.
7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>CAS: 12125-02-9 ammonium chloride</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Respiratory protection:
When ventilation is not sufficient to remove fumes from the breathing zone, a safety approved respirator or self-contained breathing apparatus should be worn.
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
Protection of hands:

Protective gloves

Material of gloves
Nitrile rubber, NBR
Natural rubber, NR
Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:

Safety Glasses with Side Shields Required
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid
Colour: Pink
Odour: Mild
pH-value at 20 °C: 1.1
Change in condition
Melting point/freezing point: Undetermined.
Initial boiling point and boiling range: 100 °C
Flash point: Not Applicable
Ignition temperature: 440 °C
Auto-ignition temperature: Product is not selfigniting.
Explosive properties: Product does not present an explosion hazard.
Vapour pressure at 20 °C: 23 hPa
Density at 20 °C: 1.09 g/cm³
Solubility in / Miscibility with water: Fully miscible.
Solvent content:
Water: 75.8 %
Solids content: 17.7 %

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: Strong acids, strong oxidizers.
10.6 Hazardous decomposition products: No dangerous decomposition products known.
SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
Harmful if swallowed.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>CAS: 62-56-6 Thiourea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>Dermal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 79-14-1 Glycolic Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
</tbody>
</table>

Primary irritant effect:
Skin corrosion/irritation
Causes severe skin burns and eye damage.
Serious eye damage/irritation
Causes serious eye damage.
Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity Based on available data, the classification criteria are not met.
Carcinogenicity Based on available data, the classification criteria are not met.
Reproductive toxicity
Suspected of damaging fertility or the unborn child.
STOT-single exposure Based on available data, the classification criteria are not met.
STOT-repeated exposure Based on available data, the classification criteria are not met.
Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
Ecotoxicological effects:
Remark: Harmful to fish
Additional ecological information:
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Disposal must be made according to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Trade name: 5560 Cleaner

European waste catalogue
16 10 01 | aqueous liquid wastes containing dangerous substances

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number
IMDG, IATA  UN1760

14.2 UN proper shipping name
ADR  1760 CORROSIVE LIQUID, N.O.S. (Glycolic Acid, FLUOROBORIC ACID)
IMDG, IATA  Not regulated

14.3 Transport hazard class(es)
ADR, IMDG, IATA

Class  8 Corrosive substances.

14.4 Packing group
ADR, IMDG, IATA  III

14.5 Environmental hazards:
Marine pollutant: No

14.6 Special precautions for user
MS Number: Not applicable.

14.7 Transport in bulk according to Annex II of Marpol
and the IBC Code
Not applicable.

Transport/Additional information:

ADR
Limited quantities (LQ)  5L
Excepted quantities (EQ)  Code: E1
Maximum net quantity per inner packaging: 30 ml

UN "Model Regulation":
UN 1760 CORROSIVE LIQUID, N.O.S. (GLYCOLIC ACID, FLUOROBORIC ACID), 8, III

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
All ingredients are listed on the following Government Inventories:

(Continued on page 8)
### Trade name: 5560 Cleaner

(Continued from page 7)

<table>
<thead>
<tr>
<th>Country</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
</tr>
<tr>
<td>Korea</td>
<td>Korea Existing Chemicals List (ECL)</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
</tr>
<tr>
<td>USA</td>
<td>TSCA (Toxic Substances Control Act) / TSCA Inventory of Chemical Substances</td>
</tr>
</tbody>
</table>

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms**

- ![GHS05](image)
- ![GHS07](image)
- ![GHS08](image)

**Signal word** Danger

**Hazard-determining components of labelling:**

- thiourea
- Glycolic Acid
- Tetrafluoroboric acid
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- ammonium chloride

**Hazard statements**

- H302 Harmful if swallowed.
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- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
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- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 65

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser’s use. The data on this Safety Data Sheet (SDS) relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet (SDS) as a source for hazard information.

**Department issuing SDS:** Product Compliance / EHS Department

**Contact:**

EHS_Kester@kester.com

(Continued on page 9)
Branch Manager (Malaysia Only) Telephone No : 04-6414633

**Abbreviations and acronyms:**
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 3: Acute toxicity – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Repr. 2: Reproductive toxicity – Category 2
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

*Data compared to the previous version altered.*