Thioacetic acid (cas 507-09-5) MSDS

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers
Product name: Thioacetic acid
Product Number: T30805
Brand: 
CAS-No.: 507-09-5

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
Flammable liquids (Category 2)
Acute toxicity, Oral (Category 3)
Skin corrosion (Category 1B)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Highly flammable. Causes burns.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008 [CLP]

Signal word: Danger
Pictogram:
Hazard statement(s)
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
Precautionary statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements: none


Hazard symbol(s):
R-phrase(s)
R11 Highly flammable.
R34 Causes burns.
S-phrase(s)
S9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other hazards
Lachrymator.
3. COMPOSITION/INFORMATION ON INGREDIENTS
3.1 Substances
Synonyms: Thiacetic acid
Formula: C2H4OS
Molecular Weight: 76.12 g/mol
Component
Thiacetic acid
CAS-No.: 507-09-5
EC-No.: 208-063-8

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
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea
4.3 Indication of any immediate medical attention and special treatment needed
No data available

5. FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.
5.2 Special hazards arising from the substance or mixture
Carbon oxides, Sulphur oxides
5.3 Advice for firefighters
Wear self-contained breathing apparatus for fire fighting if necessary.
5.4 Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
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
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking; Take measures to prevent the build up of electrostatic
charge.

7.2 **Conditions for safe storage, including any incompatibilities**
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C
Handle and open container with care.

7.3 **Specific end uses**
no data available

8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters**

Components with workplace control parameters

8.2 **Exposure controls**

**Appropriate engineering controls**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

- **Personal protective equipment**

**Eye/face protection**
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Immersion protection**
Material: butyl-rubber
Minimum layer thickness: 0,3 mm
Break through time: 480 min
Material tested:Butoject? (Z677647, Size M)

**Splash protection**
Material: Nitrile rubber
Minimum layer thickness: 0,4 mm
Break through time: 30 min
Material tested:Camatri? (Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. 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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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 such as NIOSH (US) or CEN (EU).

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties**

a) Appearance
Form: clear, liquid
Colour: light yellow

b) Odour
Stench.

c) Odour Threshold
no data available

d) pH
no data available

e) Melting point/freezing point
no data available
f) Initial boiling point and boiling range 88 - 91,5 °C - lit.
g) Flash point 11 °C - closed cup
h) Evaporation rate no data available

- T30805
i) Flammability (solid, gas) no data available
j) Upper lower flammability or explosive limits no data available
k) Vapour pressure no data available
l) Vapour density no data available
m) Relative density 1,065 g/cm3 at 25 °C
n) Water solubility no data available
o) Partition coefficient: n-octanol/water log Pow: 0,33
p) Autoignition temperature no data available
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

9.2 Other safety information no data available

10. STABILITY AND REACTIVITY
10.1 Reactivity no data available
10.2 Chemical stability no data available
10.3 Possibility of hazardous reactions no data available
10.4 Conditions to avoid Heat, flames and sparks. Extremes of temperature and direct sunlight.
10.5 Incompatible materials Oxidizing agents, Strong bases
10.6 Hazardous decomposition products Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects

   Acute toxicity
   LD50 Oral - rat - 200 - 350 mg/kg
   LC50 Dermal - rat - > 2.000 mg/kg

   Skin corrosion/irritation
   Skin - rabbit - Severe skin irritation

   Serious eye damage/eye irritation
   Eyes - rabbit - Severe eye irritation

   Respiratory or skin sensitization

   Germ cell mutagenicity
   Genotoxicity in vitro - Not mutagenic in Ames Test. Histidine reversion (Ames)

- T30805

   Carcinogenicity
   IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

   Reproductive toxicity no data available

   Specific target organ toxicity - single exposure no data available
Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Toxic if swallowed. Causes burns.</td>
</tr>
<tr>
<td>Skin</td>
<td>May be harmful if absorbed through skin. Causes skin burns.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Causes eye burns.</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Additional Information
RTECS: AJ5600000

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to daphnia and other aquatic invertebrates
EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h

12.2 Persistence and degradability
Biodegradability

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
no data available

12.6 Other adverse effects
Toxic to aquatic life.
Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 2436
IMDG: 2436
IATA: 2436

14.2 UN proper shipping name
ADR/RID: THIOACETIC ACID
IMDG: THIOACETIC ACID
IATA: Thioacetic acid

14.3 Transport hazard class(es)
ADR/RID: 3
IMDG: 3
IATA: 3

14.4 Packaging group
ADR/RID: II
IMDG: II
IATA: II

14.5 Environmental hazards
ADR/RID: no
IMDG Marine pollutant: no
IATA: no

14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2 Chemical Safety Assessment
no data available

16. OTHER INFORMATION

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information this document is based on the resent state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. guidechem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.