

Revision Date 15/07/2013
 Revision 3
 Supersedes date 01/02/2013



SAFETY DATA SHEET

Acetic Acid 50 - 80%

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

| | |
|----------------------------------|----------------------|
| Product name | Acetic Acid 50 - 80% |
| Synonyms, Trade Names | Ethanoic acid |
| REACH Registration number | 01-2119475328-30 |
| CAS-No. | 64-19-7 |
| EU Index No. | 607-002-00-6 |
| EC No. | 200-580-7 |

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

Identified uses Intermediate Pharmaceutical substance Manufacture of substances. Chemical manufacturing.

1.3. Details of the supplier of the safety data sheet

| | |
|-----------------|---|
| Supplier | Industrial Chemicals Limited Hogg Lane Grays Essex RM17 5DU United Kingdom T:+44 (0)1375 389000 F:+44 (0)1375 389110 sds@icgl.co.uk |
|-----------------|---|

1.4. Emergency telephone number

+44 (0)1865 407333 (24-hour)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

| | | |
|--------------------------------------|-------------------------------|----------------------|
| Classification (EC 1272/2008) | Physical and Chemical Hazards | Not classified. |
| | Human health | Skin Corr. 1B - H314 |
| | Environment | Not classified. |
| Classification (1999/45/EEC) | C;R34. | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

| | |
|--|-----------------|
| EC No. | 200-580-7 |
| Contains | ACETIC ACID 80% |
| Label In Accordance With (EC) No. 1272/2008 | |



Signal Word

Danger

Acetic Acid 50 - 80%

Hazard Statements

H314 Causes severe skin burns and eye damage.

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+351+338 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.

Supplementary Precautionary Statements

P260 Do not breathe vapour/spray.
 P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

| | |
|--|---|
| ACETIC ACID ...% | 60-100% |
| CAS-No.: 64-19-7 | EC No.: 200-580-7 |
| Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Corr. 1A - H314 | Classification (67/548/EEC) R10 C;R35 |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

REACH Registration number 01-2119475328-30
CAS-No. 64-19-7
EU Index No. 607-002-00-6
EC No. 200-580-7
Gross Formula C2H4O2

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention. If respiratory problems, artificial respiration/oxygen.

Ingestion

Rinse nose, mouth and throat with water. Never give liquid to an unconscious person. Get medical attention immediately!

Skin contact

Remove contaminated clothes and rinse skin thoroughly with water. Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

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

Inhalation

Irritation of nose, throat and airway.

Ingestion

May cause chemical burns in mouth and throat. Causes severe damage to gastrointestinal tract. Nausea, vomiting.

Skin contact

Burning pain and severe corrosive skin damage.

Eye contact

Corrosive to eyes.

Acetic Acid 50 - 80%

4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Water spray, fog or mist. Carbon dioxide (CO₂). Alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Oxides of: Carbon.

Unusual Fire & Explosion Hazards

Vapours may form explosive mixture with air at room temperature.

Specific hazards

The product is flammable, and heating may generate vapours which may form explosive vapour/air mixtures. When heated and in case of fire, irritating vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Cool containers exposed to flames with water until well after the fire is out.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and contact with skin and eyes. Do not smoke, use open fire or other sources of ignition. Keep people away from and upwind of spill. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Prevent entry into drains. Prevent further spillage if safe to do so. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Pump into a suitably labelled, stainless steel, acid-resistant container. Small Spillages: Neutralise with slaked lime (calcium hydroxide) or soda ash (sodium carbonate) and flush with plenty of water.

6.4. Reference to other sections

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Storage tanks and other containers must be grounded. Install a retention tank. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool and well-ventilated place. Keep away from heat, sparks and open flame. Store away from: Oxidising material. Alkalis. Store above freezing. Use storage tank made of: Stainless steel. Polyethylene or polypropylene. Plastic lined steel drum. Unsuitable containers: metals. Unsuitable containers: aluminium.

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Acetic Acid 50 - 80%

| Name | STD | TWA - 8 Hrs | | STEL - 15 Min | | Notes |
|----------------------|-----|-------------|----------|---------------|----------|-------|
| | | 10 ppm | 25 mg/m3 | 15 ppm | 37 mg/m3 | |
| Acetic Acid 50 - 80% | OES | 10 ppm | 25 mg/m3 | 15 ppm | 37 mg/m3 | |

8.2. Exposure controls

Protective equipment



Engineering measures

Provide eyewash stations and safety showers close to the workstation area.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Use filtering respiratory protective device with an ABE gas canister.

Hand protection

Protective gloves must be used if there is a risk of direct contact or splash.

Eye protection

Wear approved safety goggles.

Hygiene measures

When using do not eat, drink or smoke. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Skin protection

Wear apron or protective clothing in case of splashes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|--------------------------------|---------------------|
| Appearance | Liquid |
| Colour | Colourless. |
| Odour | Pungent. |
| Melting point (°C) | -7.5 |
| Relative density | 1.07 20 |
| Vapour pressure | 1.54 kPa 20 |
| Flash point (°C) | 61 CC (Closed cup). |
| Auto Ignition Temperature (°C) | 427 |
| Flammability Limit - Lower(%) | 5.4 |
| Flammability Limit - Upper(%) | 16 |

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances. Inorganic nitrates. Peroxides. Nitric acid.

Acetic Acid 50 - 80%

10.6. Hazardous decomposition products

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

Rat 3310 mg/kg

Acute Toxicity (Dermal LD50)

1112 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

40 mg/l (vapours) Rat 4 hours

Reproductive Toxicity:

This substance has no evidence of toxicity to reproduction.

Inhalation

Vapour may irritate respiratory system or lungs.

Ingestion

May cause chemical burns in mouth, oesophagus and stomach. Nausea, vomiting.

Skin contact

May cause serious chemical burns to the skin.

Eye contact

May cause chemical eye burns.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute Toxicity - Fish

LC50 96 hours 75 mg/l *Lepomis macrochirus* (Bluegill)

Acute Toxicity - Aquatic Invertebrates

EC50 95 @ 24h mg/l *Daphnia magna*

Acute Toxicity - Aquatic Plants

192 hours IC10: 4000 mg/l

12.2. Persistence and degradability

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product is not bioaccumulating.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Acetic Acid 50 - 80%

Do not allow runoff to sewer, waterway or ground. Neutralise with alkaline material, put in sealed container, dispose in secured landfill.
Packaging: Recover and reclaim or recycle, if practical. Wash with hot caustic soda solution.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

| | |
|----------------------|------|
| UN No. (ADR/RID/ADN) | 2790 |
| UN No. (IMDG) | 2790 |
| UN No. (ICAO) | 2790 |

14.2. UN proper shipping name

| | |
|----------------------|----------------------|
| Proper Shipping Name | ACETIC ACID SOLUTION |
|----------------------|----------------------|

14.3. Transport hazard class(es)

| | |
|---------------------|--------------------------------|
| ADR/RID/ADN Class | 8 |
| ADR/RID/ADN Class | Class 8: Corrosive substances. |
| ADR Label No. | 8 |
| IMDG Class | 8 |
| ICAO Class/Division | 8 |
| Transport Labels | |



14.4. Packing group

| | |
|---------------------------|----|
| ADR/RID/ADN Packing group | II |
| IMDG Packing group | II |
| ICAO Packing group | II |

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

| | |
|-------------------------|----------|
| EMS | F-A, S-B |
| Emergency Action Code | •2R |
| Hazard No. (ADR) | 80 |
| Tunnel Restriction Code | (E) |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

15.2. Chemical Safety Assessment

Acetic Acid 50 - 80%

SECTION 16: OTHER INFORMATION

Revision Comments

Updated concentration limits.

| | |
|------------------------|------------|
| Issued By | D.Kelly |
| Revision Date | 15/07/2013 |
| Revision | 3 |
| Supersedes date | 01/02/2013 |

Risk Phrases In Full

| | |
|-----|----------------------|
| R10 | Flammable. |
| R34 | Causes burns. |
| R35 | Causes severe burns. |

Hazard Statements In Full

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H314 | Causes severe skin burns and eye damage. |

Disclaimer

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.