

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

Identification of the product:**Product number:** A1020**Name of material:** Acetic acid glacial**Use of the substance/preparation:**

Laboratory reagent, synthesis of organic products, in the rubber industry, in food industry

2. Composition/information on ingredients

Identification and amount of the components:

Synonyms: Methane

Carboxylic acid: Methylformic acid

CAS number: 64-19-7

Molecular weight: 60.05 g / mol

EC index no: 607-002-00-6

EC number: 200-580-7

Formula: CH₃COOH

3. Hazards identification

Flammable causes severe burns.

4. First aid measures

After inhalation: Fresh air. Summon doctor.**After skin contact:** Wash off with plenty of water. Dab with polyethylene glycol 400. Immediately change contaminated clothing.**After ingestion:** Plenty of water to drink (several liters), avoid vomiting (risk of perforation!). Immediately summon doctor. Do not attempt to neutralize.**After eye contact:** Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.

5. Fire-fighting measures

Suitable extinguishing media: Water, foam, powder.**Special risks:** Combustible. Vapours heavier than air, formation of explosive mixtures possible with air. Keep away from sources of ignition. Formation of combustion gases or dangerous vapours possible in event of fire. The following may develop in event of fire: acetic acid vapours.**Special protective equipment for fire fighting:** Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.**Further information:** Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

Person-related precautionary measures: Do not inhale vapours/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.**Environmental precautions:** Do not allow to enter sewerage system (risk of explosion!).**Procedures for cleaning / absorption:** Take up with liquid-absorbent material. Forward for disposal clean up.

7. Handling and storage

Handling: Take measures to prevent electrostatic charging. Keep away from sources of ignition.**Storage:** Tightly closed in a well-ventilated place, away from sources of ignition and heat. Dry. Store at + 15°C to + 25°C.

8. Exposure controls/personal protection

Exposure controls:

Occupational exposure controls: The personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should indicate the stability of the personal protective equipment to chemical reagents.

Respiratory protection: Required when vapours/aerosols are generated.

Hand protection: Required

Eye protection: Required

Skin protection: Acid-resistant protective clothing. Application of skin- protective barrier cream recommended.

Industrial hygiene: Immediately change contaminated clothing. Wash hands and face after working with substance.

9. Physical and chemical properties

General information:

Form: Liquid

Colour: Colourless

Odour: Pungent

Important health, safety and environmental information:

pH value (50g/l H₂O, 20 °C): 2.5

Boiling temperature: 117 °C

Flash point: 38 °C

Explosion limits (low): 4 Vol%

Explosion limits (high): 19.9 Vol%

Vapour pressure: (20 °C) 15.4 hPa

Density (20 °C): 1.05 g/cm³

Solubility in water: (20 °C): Miscible

Solubility in:

Ethanol: Miscible ether: miscible

Partition coefficient n-octanol/water: log P(o/w): -0.17 (experimentally)

Viscosity: --

Relative vapour density: 2.07

Refractive index: (20 °C) 1.37

Melting temperature: 17 °C

Ignition temperature: 485 °C

10. Stability and reactivity

Conditions to be avoided: Strong heating. Temperatures below 0 °C

Substances to be avoided: Anhydrides, water, aldehydes, alcohols, halogen-halogen compounds, oxidizing agents (i.a. CrO₃, KMnO₄, peroxi compounds, perchloric acid, chromosulfuric acid), alkali hydroxides, nonmetallic halides, ethanalamine. Hydrogen may form upon contact with metals (danger of explosion!).

Hazardous decomposition products: In event of fire: see chapter 5

Further information: Combustible; incompatible with various metals. Explosible with air in a vaporous/gaseous state.

11. Toxicological information

Acute toxicity:

LD₅₀(oral, rat): 3310 mg/kg

LC₅₀ (inhalation, rat): 11.4 mg/l /4h.

LD₅₀ (dermal, rabbit): 1060 mg/kg

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns Skin irritation test (rabbit): burns The literature data available to us do not conform with the labelling prescribed by the EC. The EU has dossiers which have not been published.

Subacute to chronic toxicity: Mutagenicity:

Bacterian mutagenicity: Salmonella

typhimurium: Negative

E. coli: Negative

Ames-Test: Negative

Teratogenicity: Nonteratogenic in animal experiments.

MSDS : A1020 Acetic acid glacial

Further toxicological information:

Strongly corrosive substance

After inhalation: Irritating to respiratory system; pneumonia, bronchitis. Inhalation may lead to the formation of oedemas in the respiratory tract.

After skin contact: Burns

After eye contact: Burns. Risk of blindness! Risk of corneal clouding; burns of mucous membranes.

After ingestion: Burns in oesophagus and stomach, gastric spasms, bloody vomiting, dyspnoea. Risk of perforation in the oesophagus and stomach, Cannot be excluded: shock, cardiovascular failure, acidosis

Damage of: Kidneys

After aspiration of vomit: Pulmonary failure possible.

Further information:

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects: Damage of aquatic organisms. Harmful effect due to pH shift, Corrosive even at low concentration

Fish toxicity:

L. macrochirus CL₅₀: 75 mg/l /96h.

P. promelas CL₅₀: 88 mg/l /96h.

Daphnia toxicity: Daphnia magna EC₅₀: 47 mg/l /24h.

Algal toxicity: Sc. quadricauda IC₅: 4000 mg/l /16h.

Bacterial toxicity: Ps. putida CE₅: 2850 mg/l /16h. Neutral

Protozoa toxicity: E. sulcatum EC₅: 78mg/l /72h. Neutral

Mobility: log P (o/w): -0.17 (experimentally)

Bioaccumulative potential: Low probability of bioaccumulation (log P(o/w) < 1).

Bioconcentration factor: < 1

Persistence and degradability: Biological degradability: 99% /30d. (Closed flask test)

Biological degradability: good

Further ecologic data:

Do not allow to enter waters, waste water, or soil.

13. Disposal considerations

Product: There are no uniform EU Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

14. Transport information**Road transport:**

UN-No: 2789

ADR class: 8 CF1 II

Correct technical name: ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION,

Sea transport:

UN-No: 2789

IMDG class: 8 II

Correct technical name: ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION,

Air transport:

UN-No: 2789

IATA/ICAO class: 8 II

Correct technical name: ACETIC ACID, GLACIAL or ACETIC ACID SOLUTION,

15. Regulatory information

Labelling according to EC Directives

Symbol: C (Corrosive)

R-phrases: 10-35 Flammable. Causes severe burns

S-phrases: 23.2-51-26-36/37/39-45 Do not breathe vapour. Use only in well ventilated areas. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

EC-Index-No: 607-002-00-6

16. Other information

Reason for the revision: General update.

Date: 22/1/2011

No warranty, expressed or implied for a particular purpose or otherwise is made, except the products herein discussed comply to the chemical description on the labels. Buyer assumes risks of the use, storage and handling. Producer or distributors shall not be liable for any incidental or consequential damages arising directly or indirectly in connection with the purchase, use, storage or handling of this product. The information contained herein is, to the best of our knowledge, true and accurate. However, all recommendations or suggestions are made without guarantee, since the conditions of use are beyond our control. We disclaim any liability incurred in connection with the use of these data or suggestions.

