



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

ACETIC ACID GLACIAL 99,5% EXTRAPURE

PRODUCT CODE : A-2001

CAS No : 64-19-7

FORMULA : CH_3COOH

UN No : 2789

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

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MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

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

- 1.1 Product Name** : ACETIC ACID GLACIAL 99,5% EXTRAPURE
Synonyms : Acetic acid, Methane carboxylic acid, Ethanoic acid.
CAS No. : 64-19-7
HS Code : 2915 21 00
Chemical Formula : CH₃COOH C₂H₄O₂ Hill
Molecular Weight : 60.05 g/mol
Product Code : A-2001
Brand : Labotiq
1.2 Manufacturer : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
1.3 Application : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

Skin corrosion (Sub-category 1A), H314

Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H226

Flammable liquid and vapor.

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338 + P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

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do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms : Ethanoic acid
 Formula : CH₃COOH C₂H₄O₂ Hill
 Molecular weight : 60.05 g/mol
 CAS-No. : 64-19-7
 EC-No. : 200-580-7
 No. Indeks : 607-002-00-6

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Acetic acid CAS-No. 64-19-7 EC-No. 200-580-7 Index-No. 607-002-00-6	Flam. Liq. 3; Skin Corr. 1A; Eye Dam. 1; H226, H314, H318 Concentration limits: >= 90 %: Skin Corr. 1A, H314; 25 - < 90 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319; 10 - < 25 %: Eye Irrit. 2, H319; 10 - < 25 %: Skin Irrit. 2, H315; 25 - < 90 %: Skin Corr. 1B, H314; >= 90 %: Skin Corr. 1A, H314; >= 90 %: 3, H226;	<=100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 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

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.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Combustible.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, 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. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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.

SECTION 7: Handling and storage

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

7.1 Precautions for safe handling

Advice on safe handling

Avoid inhalation of vapor or mist.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

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. Moisture sensitive.

Storage class

Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Derived No Effect Level (DNEL)

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Acute local effects	25 mg/m ³
Workers	Inhalation	Long-term local effects	25 mg/m ³
Workers	Skin contact	Long-term local effects	10mg/kg BW/d
Consumers	Inhalation	Acute local effects	25 mg/m ³

Predicted No Effect Concentration (PNEC)

Compartment	Value
Soil	0.478 mg/kg
Marine water	0.3058 mg/l
Fresh water	3.058 mg/l
Marine sediment	1.136 mg/kg
Fresh water sediment	11.36 mg/kg
Sewage treatment plant	85 mg/l
Aquatic intermittent release	30.58 mg/l

8.2 Exposure control

Appropriat engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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.

Full contact

Material: butyl-rubber
Minimum layer thickness: 0,3 mm
Break through time: 480 min
Material tested:Butoject®

Splash contact

Material: Nature latex/chloroprene
Minimum layer thickness: 0,6 mm
Break through time: 32 min
Material tested:Lapren®

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 fullface 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).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid
	Colour: colourless
Odour	stinging
Odour Threshold	No data available
pH	2,5 at 50 g/l at 20 °C
Melting point/freezingpoint	Melting point/range: 16,2 °C - lit.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

Initial boiling point and boiling range	117 - 118 °C - lit.
Flash point	39 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or	Upper explosion limit: 19.9 %(V)
	Lower explosion limit: 4 %(V)
explosive limits	No data available
Vapour pressure	20,79 hPa at 25 °C
Vapour density	2,07
Relative density	1,049 g/cm ³ at 25 °C - lit..
Water solubility	602,9 g/l at 25 °C at 1.013 hPa - completely soluble
Partition coefficient: noctanol/water	log Pow: -0,17 at 25 °C –
	Bioaccumulation is not expected., (ECHA)
Auto-ignition temperature	463 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
	temperature
Viscosity	Viscosity, kinematic: 1,17 mm ² /s at 20 °C
Explosive properties	No data available
Oxidizing properties	No data available

9.2 Other safety information

Surface tension	28,8 mN/m at 10,0 °C
Relative vapor density	2,07

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, for example potassium permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 3.310 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Mouse - 4 h - 2.819 mg/l

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

Remarks: (RTECS)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Causes burns. - 4 h (OECD Test Guideline 404)

Remarks: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes burns. - 4 h

(OECD Test Guideline 405)

Remarks: (IUCLID) Causes serious eye damage.

Respiratory or skin sensitisation

Test Type: Ames test Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: Micronucleus test

Species: Rat Cell type: Bone marrow

Application Route: inhalation (vapor)

Method: Mutagenicity (micronucleus test)

Result: negative

Germ cell mutagenicity

No data available(Acetic acid)

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(Acetic acid)

Specific target organ toxicity - single exposure

No data available(Acetic acid)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Acetic acid)

Additional Information

RTECS: AF1225000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
ACETIC ACID GLACIAL 99,5% EXTRAPURE

MSDS Number : 0013

Date : Aug 15th, 2024

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bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratory and digestive tracts. Symptoms include: hematemesis, bloody diarrhea, edema and/or perforation of the esophagus and pylorus, pancreatitis, hematuria, anuria, uremia, albuminuria, hemolysis, convulsions, bronchitis, pulmonary edema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapor with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, opacification, iritis, conjunctivitis, and possible blindness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish semi-static test

LC50 - *Oncorhynchus mykiss* (rainbow trout) - > 1.000 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - *Daphnia magna* (Water flea) - > 1.000 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test EC50 - *Skeletonema costatum* - > 1.000 mg/l - 72 h (ISO 10253)

Toxicity to bacteria

EC5 - *Pseudomonas putida* - 2.850 mg/l - 16 h

Remarks: neutral (maximum permissible toxic concentration) (Lit.)

microtox test EC50 - *Photobacterium phosphoreum* - 11 mg/l - 15 min

Remarks: (IUCLID)

12.2 Persistence and degradability

Biodegradability

Result: 99 % - Readily biodegradable. (OECD Test Guideline 301D)

Remarks: (HSDB)

Result: 95 % - Readily eliminated from water (OECD Test Guideline 302B)

Biochemical Oxygen Demand (BOD) 880 mg/g

Remarks: (Lit.)

Ratio BOD/ThBOD 76 %

Remarks: (IUCLID)

12.3 Bioaccumulative potential

No data available(Acetic acid).

12.4 Mobility in soil

No data available(Acetic acid)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological information

No data available

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

Version : 1.0

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2789

IMDG: 2789

IATA: 2789

14.2 UN proper shipping name

ADR/RID: ACETIC ACID, GLACIAL

IMDG: ACETIC ACID, GLACIAL

IATA: ACETIC ACID, GLACIAL

14.3 Transport hazard class(es)

ADR/RID: 8 (3)

IMDG: 8 (3)

IATA: 8 (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

Further information

No data available

SECTION 15: Regulatory information

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

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 2

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETIC ACID GLACIAL 99,5% EXTRAPURE



MSDS Number : 0013

Date : Aug 15th, 2024

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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 in this document is based on the present 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. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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