

Acetic Acid (C₂H₄O₂)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 6/6/2022 Revision date: 6/6/2022 Version: 1.0 SDS number: P2022052304

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

1.1. Product identifier

Product form	: Substance
Trade name	: Acetic Acid (C ₂ H ₄ O ₂)
Chemical name	: Acetic Acid
EC Index-No.	: 607-002-00-6
EC-No.	: 200-580-7
CAS-No.	: 64-19-7
REACH Registration Number	: 01-2119475328-30-0163

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: It is widely used in commercial organic synthesis as a chemical reactant for various acetates, acetyl compounds, acetate rayon, plastics, and rubber; in tanning, printing and dyeing of fabric. Also used as an acidulant and preservative in foods. Solvent for many substances.
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Sahara International Petrochemical Company (Sipchem)
Saudi Arabia, Jubail Industrial City 31961, P.O Box 12021.
T 966 13 359 9999
compliances@sipchem.com - <https://www.sipchem.com>

1.4. Emergency telephone number

T +966 13 359 9985 (24 x 7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Skin corrosion/irritation, Category 1, Sub-Category 1A	H314

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes severe skin burns and eye damage.

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H226 - Flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P235 - Keep cool.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.. Immediately call a POISON CENTER or doctor.

P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Acetic Acid (C₂H₄O₂)

Name	Product identifier	%
Acetic Acid	CAS-No.: 64-19-7 EC-No.: 200-580-7 EC Index-No.: 607-002-00-6 REACH Registration No. 01-2119475328-30-0163	99.85

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: On combustion forms: carbon oxides
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protective equipment for firefighters	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area.

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to prevent formation of vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Acetic Acid (64-19-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetic Acid
IOEL TWA	25 mg/m ³
IOEL TWA [ppm]	10 ppm
IOEL STEL	50 mg/m ³

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
IOEL STEL [ppm]	20 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
Austria - Occupational Exposure Limits	
Local name	Essigsäure
MAK (OEL TWA)	25 mg/m ³
MAK (OEL TWA) [ppm]	10 ppm
MAK (OEL STEL)	50 mg/m ³
MAK (OEL STEL) [ppm]	20 ppm
Regulatory reference	BGBI. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Acide acétique # Azijnzuur
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	38 mg/m ³
OEL STEL [ppm]	15 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Bulgaria - Occupational Exposure Limits	
Local name	Оцетна киселина
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Remark	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Octena kiselina
GVI (OEL TWA) [1]	25 mg/m ³
GVI (OEL TWA) [2]	10 ppm
KGVI (OEL STEL)	50 mg/m ³
KGVI (OEL STEL) [ppm]	20 ppm
Remark	Direktiva: 2017/164/EU
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, граниčnim vrijednostima izloženosti i biološkim граниčnim vrijednostima (NN 1/2021)

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
Cyprus - Occupational Exposure Limits	
Local name	Οξικό οξύ
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Regulatory reference	Κανονισμοί του 2019 (Κ.Δ.Π. 16/2019)
Czech Republic - Occupational Exposure Limits	
Local name	Kyselina octová (Kyselina ethanová)
PEL (OEL TWA)	25 mg/m ³
PEL (OEL TWA) [ppm]	10.2 ppm
NPK-P (OEL C)	35 mg/m ³
NPK-P (OEL C) [ppm]	14.28 ppm
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 195/2021 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Eddikesyre (Ethansyre)
OEL TWA [1]	25 mg/m ³
OEL TWA [2]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Remark	E (betyder, at stoffet har en EF-grænseværdi)
Regulatory reference	BEK nr 2203 af 29. november 2021
Estonia - Occupational Exposure Limits	
Local name	Etaanhape (äädikhape)
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	25 mg/m ³
OEL STEL [ppm]	10 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)
Finland - Occupational Exposure Limits	
Local name	Etikkahappo
HTP (OEL TWA) [1]	13 mg/m ³
HTP (OEL TWA) [2]	5 ppm
HTP (OEL STEL)	25 mg/m ³
HTP (OEL STEL) [ppm]	10 ppm

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Acide acétique
VME (OEL TWA)	25 mg/m ³
VME (OEL TWA) [ppm]	10 ppm
VLE (OEL C/STEL)	25 mg/m ³
VLE (OEL C/STEL) [ppm]	10 ppm
Remark	Valeurs réglementaires indicatives
Regulatory reference	Circulaire du Ministère du travail (réf.: Arrête du 27 septembre 2019)
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	25 mg/m ³
AGW (OEL TWA) [2]	10 ppm
Peak exposure limitation factor	2(l)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Οξικό οξύ
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	37 mg/m ³
OEL STEL [ppm]	15 ppm
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	ECETSAV
AK (OEL TWA)	25 mg/m ³
CK (OEL STEL)	25 mg/m ³
Remark	m (maró hatású anyag, amely felmarja a bőrt, nyálkahártyát, szemet vagy mindhármát); EU4 (2017/164 EU irányelvben közölt érték); N (Irritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
Ireland - Occupational Exposure Limits	
Local name	Acetic Acid
OEL TWA [1]	25 mg/m ³
OEL TWA [2]	10 ppm
OEL STEL	37 mg/m ³
OEL STEL [ppm]	15 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2021
Italy - Occupational Exposure Limits	
Local name	Acido Acetico
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
Local name	Etiķskābe (etānskābe)
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2018. gada 10. jūlijā noteikumiem Nr. 407)
Lithuania - Occupational Exposure Limits	
Local name	Acto rūgštis
IPRV (OEL TWA)	25 mg/m ³
IPRV (OEL TWA) [ppm]	10 ppm
TPRV (OEL STEL)	50 mg/m ³
TPRV (OEL STEL) [ppm]	20 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg - Occupational Exposure Limits	
Local name	Acide acétique
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
OEL STEL [ppm]	20 ppm
Regulatory reference	Mémorial A N° 226 de 2021 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail
Malta - Occupational Exposure Limits	
Local name	Acetic Acid
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Regulatory reference	S.L.424.24 - Chemical Agents at Work Regulations (L.N.356 of 2021)
Poland - Occupational Exposure Limits	
Local name	Kwas octowy
NDS (OEL TWA)	15 mg/m ³
NDSch (OEL STEL)	30 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Ácido acético
OEL TWA [ppm]	10 ppm
OEL STEL [ppm]	15 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Acid Acetic
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Slovakia - Occupational Exposure Limits	
Local name	Kyselina octová (kyselina etánová)
NPHV (OEL TWA) [1]	25 mg/m ³
NPHV (OEL TWA) [2]	10 ppm
NPHV (OEL STEL)	50 mg/m ³
NPHV (OEL STEL) [ppm]	20 ppm
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
Slovenia - Occupational Exposure Limits	
Local name	očetna kislina
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³
OEL STEL [ppm]	20 ppm
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), EU
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
Local name	Ácido Acético
VLA-ED (OEL TWA) [1]	25 mg/m ³
VLA-ED (OEL TWA) [2]	10 ppm
VLA-EC (OEL STEL)	37 mg/m ³
VLA-EC (OEL STEL) [ppm]	15 ppm
Remark	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT
Sweden - Occupational Exposure Limits	
Local name	Ättiksyra
NGV (OEL TWA)	13 mg/m ³
NGV (OEL TWA) [ppm]	5 ppm
KTV (OEL STEL)	25 mg/m ³
KTV (OEL STEL) [ppm]	10 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Acetic Acid
WEL TWA (OEL TWA) [1]	25 mg/m ³
WEL TWA (OEL TWA) [2]	10 ppm
WEL STEL (OEL STEL)	37 mg/m ³
WEL STEL (OEL STEL) [ppm]	15 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Iceland - Occupational Exposure Limits	
Local name	Ediksýra
OEL TWA	25 mg/m ³
OEL TWA [ppm]	10 ppm
OEL STEL	50 mg/m ³

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Acetic Acid (64-19-7)	
OEL STEL [ppm]	20 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 1069/2018)
Norway - Occupational Exposure Limits	
Local name	Eddiksyre
Grenseverdi (OEL TWA) [1]	25 mg/m ³
Grenseverdi (OEL TWA) [2]	10 ppm
Korttidsverdi (OEL STEL)	50 mg/m ³
Korttidsverdi (OEL STEL) [ppm]	20 ppm
Remark	A: Kjemikalier som skal betraktes som at de fremkaller allergi eller annen overfølsomhet i øynene eller luftveier, eller som skal betraktes som at de fremkaller allergi ved hudkontakt; E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet.
Regulatory reference	FOR-2021-06-28-2248
Switzerland - Occupational Exposure Limits	
Local name	Acide acétique / Essigsäure
MAK (OEL TWA) [1]	25 mg/m ³
MAK (OEL TWA) [2]	10 ppm
KZGW (OEL STEL)	50 mg/m ³
KZGW (OEL STEL) [ppm]	20 ppm
Critical toxicity	VRS, Yeux / OAW, Auge
Notation	SS _c / SS _c
Remark	max. 8x5 min/8h
Regulatory reference	www.suva.ch, 01.01.2021

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
Acetic Acid	Inhalation 25 mg/m ³ (Local, Chronic) Inhalation 25 mg/m ³ (Local, Acute) Inhalation 25 mg/m ³ (Local, Chronic) * Inhalation 25 mg/m ³ (Local, Acute) *	3.058 mg/L (Water (Fresh)) 0.306 mg/L (Water (Marine)) 11.36 mg/kg sediment dw (Sediment (Fresh Water)) 1.136 mg/kg sediment dw (Sediment (Marine)) 0.47 mg/kg soil dw (Soil) 85 mg/L (STP)

* Values for General Population

8.1.5. Control banding

No additional information available

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Use eye protection according to EN 166. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear protective gloves. Wear suitable gloves tested to EN374

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: vinegar odor.
Odour threshold	: 1 ppm
Melting point	: 17 °C
Freezing point	: Not available
Boiling point	: 118 °C
Flammability	: Flammable.
Lower explosion limit	: 4 vol % @59 °C
Upper explosion limit	: 16 vol % @92 °C
Flash point	: 39 °C
Auto-ignition temperature	: 464 °C
Decomposition temperature	: Not available
pH	: 2.4
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 1.22 cP @20 °C
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Vapour pressure	: 11.8 mm Hg 20 °C
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 1.0492
Relative vapour density at 20 °C	: 2.07
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: 0.97
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SECTION 10: Stability and reactivity

10.1. Reactivity

Will not polymerize under normal conditions of storage and use.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerization will not occur.

10.4. Conditions to avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with combustible materials and strong oxidizers.

10.5. Incompatible materials

combustible materials, amines, oxidizing materials, bases, halogens, acids, peroxides, metals.

10.6. Hazardous decomposition products

Carbon oxides, acidic vapors.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Acetic Acid (64-19-7)

LD50 oral rat	3310-3530 mg/kg (RTECS)
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Skin corrosion/irritation	: Causes severe skin burns. pH: 2.4
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Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 2.4
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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Respiratory or skin sensitisation	: No data available
Germ cell mutagenicity	: Salmonella Typhimurium TA92, TA1535, TA100, TA1537, TA94 and TA98: Negative [OECD 471] Rat: Negative [EU Method B.12 (Mutagenicity - In Vivo Mammalian Erythrocyte Micronucleus Test)]
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration hazard	: No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Acetic Acid (64-19-7)

LC50 fish 96h	> 1 000 mg/L
EC50 Daphnia magna 48h	> 300.82 mg/L
EC50 Algae 72h	> 300.82 mg/L

12.2. Persistence and degradability

Acetic Acid (C₂H₄O₂) (64-19-7)

Persistence and degradability : Readily biodegradable >100% (OECD Test Guideline 302B , 5 day)

12.3. Bioaccumulative potential

Acetic Acid (C₂H₄O₂) (64-19-7)

Bioaccumulative potential : BCF: 3.16 dimensionless (QSAR)

12.4. Mobility in soil

Koc at 20 °C: 1.153

12.5. Results of PBT and vPvB assessment

the substance is not PBT / vPvB

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.






SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Flammable vapours may accumulate in the container.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 2789	UN 2789	UN 2789	UN 2789	UN 2789
14.2. UN PROPER SHIPPING NAME				
Acetic Acid, Glacial	Acetic Acid, Glacial	Acetic Acid, Glacial	Acetic Acid, Glacial	Acetic Acid, Glacial
Transport document description				
Un 2789 Acetic Acid, Glacial, 8 (3), ii, (d/e)	Un 2789 Acetic Acid, Glacial, 8 (3), ii	Un 2789 Acetic Acid, Glacial, 8 (3), ii	Un 2789 Acetic Acid, Glacial, 8 (3), ii	Un 2789 Acetic Acid, Glacial, 8 (3), ii
14.3. Transport hazard class(es)				
8 (3)	8 (3)	8 (3)	8 (3)	8 (3)
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				
14.6. Special precautions for user				

Overland transport

Classification code (ADR) : CF1
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Packing instructions (ADR)	: P001, IBC02
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP2
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 83
Orange plates	:



Tunnel restriction code (ADR)	: D/E
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Transport by sea

Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-C
Stowage category (IMDG)	: A
Segregation (IMDG)	: SGG1, SG36, SG49
Properties and observations (IMDG)	: Colourless flammable liquid with a pungent odour. When pure, crystallizes below 16°C. Flashpoint: 40°C c.c. (pure product) 60°C c.c. (80% solution) Explosive limits: 4% to 17% Miscible with water. Corrosive to lead and most other metals. Corrosive to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
ERG code (IATA)	: 8F

Inland waterway transport

Classification code (ADN)	: CF1
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: CF1
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BN

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Transport category (RID) : 2
Colis express (express parcels) (RID) : CE6
Hazard identification number (RID) : 83

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Acetic Acid (C₂H₄O₂) is not on the REACH Candidate List

Acetic Acid (C₂H₄O₂) is not on the REACH Annex XIV List

Acetic Acid (C₂H₄O₂) is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Acetic Acid (C₂H₄O₂) is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Acetic Acid (C₂H₄O₂) is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 93)
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Class for fire hazard : Class II-1
Store unit : 5 liter
Classification remarks : R10 <H226;H314>; Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations : Young people under 18 years are not allowed to use the product

Switzerland

Storage class (LK) : LK 3 - Flammable liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Effective concentration for 50 percent of test population (median effective concentration)
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:

vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:

Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.