

# Glacial acetic acid

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 20/06/2014 Revision date: 06/03/2017

**710911**

Version: 2.0

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

### 1.1. Product identifier

Product form : Substance  
Substance name : Glacial acetic acid  
EC Index No : 607-002-00-6  
EC No : 200-580-7  
CAS No : 64-19-7  
Product code : 710911  
Synonyms : Acidum aceticum glaciale / 99% acetic acid, glacial acetic acid  
Product group : Raw material

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

Duchefa Farma BV  
A. Hofmanweg 71  
2031BH Haarlem - Nederland  
T +31(0)23-5319093  
[farma@duchefa.nl](mailto:farma@duchefa.nl) - [www.duchefa-farma.com](http://www.duchefa-farma.com)

### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
+31(0)23-5319093 (M-F 09:00-17:00)  
+31(0)6-30109355 (outside office hours)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	

## 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 1A H314

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Full text of hazard classes and H-statements : see section 16

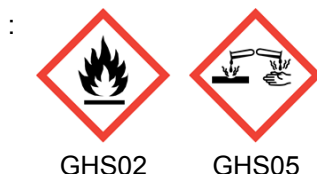
### Adverse physicochemical, human health and environmental effects

No additional information available

## 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, open flames, sparks. - No smoking  
P280 - Wear protective gloves, protective clothing, face protection, eye protection  
P262 - Do not get in eyes, on skin, or on clothing  
P305+P351 - IF IN EYES: Rinse cautiously with water for several minutes  
P310 - Immediately call a POISON CENTER or doctor/physician

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type : Pharmaceuticals  
Name : Glacial acetic acid  
CAS No : 64-19-7  
EC No : 200-580-7  
EC Index No : 607-002-00-6

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
acetic acid ... %	(CAS No) 64-19-7 (EC No) 200-580-7 (EC Index No) 607-002-00-6	100	Flam. Liq. 3, H226 Skin Corr. 1A, H314

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
acetic acid ... %	(CAS No) 64-19-7 (EC No) 200-580-7 (EC Index No) 607-002-00-6	( 10 =<C < 25) Skin Irrit. 2, H315 ( 10 =<C < 25) Eye Irrit. 2, H319 ( 25 =<C < 90) Skin Corr. 1B, H314 ( C >= 90) Skin Corr. 1A, H314

Full text of H-statements: see section 16

## 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).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. After contact with skin, wash immediately with plenty of propylene glycol 400 (Roticlean).
First-aid measures after eye contact	: 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/physician. Ensure adequate flushing of eyes by separating eyelids with the fingers.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Risk of aspiration pneumonia. Give a slurry of activated charcoal in water to drink. Drink plenty of water. Laxative: Sodium sulfate (1 tbsp in 1 cup water) to drink with plenty of charcoal.

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

Symptoms/injuries	: Causes severe skin burns and eye damage. Acetic acid vapors are present in concentrations from 25 ml/m3 highly irritating to the mucous membranes of the eyes and respiratory tract. 20 to 50 g of pure acid are life threatening.
Symptoms/injuries after inhalation	: Irritation of the respiratory tract and the other mucous membranes. Bronchitis. Pulmonary oedema.
Symptoms/injuries after ingestion	: perforation of the esophagus and stomach. Stomach cramps, bloody vomiting, shortness of breath. Severe irritation or burns to the mouth, throat, oesophagus, and stomach. Risk of aspiration pneumonia. acidose. Heartinfarct/cardiac arrest. Damage of the kidneys can occur. Shock.

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

20 to 50 g of pure acid are life threatening.

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour. Vapours are heavier than air.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Hazardous decomposition products in case of fire	: On burning: release of corrosive gases/vapours (acetic acid vapours).

### 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.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid any direct contact with the product.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Small quantities of liquid spill: neutralize with lime or soda (sodium carbonate). Residue may be washed down with water.

### 6.4. Reference to other sections

Reference to other sections (8, 13).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. No flames. Eliminate all sources of ignition. Only acid-proof and explosion-proof equipment / devices use / equipment. Electrical installation checked regularly because of the increased risk of corrosion.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Do not breathe Dust/Mist, Vapours. Avoid contact during pregnancy/while nursing.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Comply with applicable regulations.

Storage conditions : Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage area : VCI storage class: 3 A. VCI storage class: 8.

Packaging materials : Stainless steel.

### 7.3. Specific end use(s)

Pharmaceutical industry.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**MAK : 25 mg/m<sup>3</sup>, 10 ml/m<sup>3</sup>**8.2. Exposure controls****Personal protective equipment:**

Avoid all unnecessary exposure.

**Hand protection:**

Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN 374

**Eye protection:**

Safety glasses (to European standard EN 166 or equivalent)

**Skin and body protection:**

Protective clothing (with elasticated cuffs and closed neck)

**Respiratory protection:**

Dustmask with filtertype P1

**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	: Acid.
Odour threshold	: No data available
pH	: 2.5
pH solution	: 10 g/l 20 °C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 16.6 °C
Freezing point	: No data available
Boiling point	: 118 °C
Flash point	: 40 °C
Auto-ignition temperature	: 485 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour
Vapour pressure	: 16 mbar
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.05 g/cm <sup>3</sup>
Solubility	: Completely miscibility with water.
Log Pow	: -0.31

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Viscosity, kinematic	: 1.46 mm <sup>2</sup> /s
Viscosity, dynamic	: 1.53 mPa.s
Explosive properties	: Product is not explosive. May form flammable/explosive vapour-air mixture.
Oxidising properties	: No data available
Explosive limits	: 4 - 17 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Thermal decomposition generates : Corrosive vapours. Temperatures. < 0 ° C.

### 10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

Corrosive to metals.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

### 10.5. Incompatible materials

Strong acids. Strong bases. Anhydride / water. Aldehydes. alcohols. Halogen-halogen compounds. Alkali metals. Alkaline earth metals. Oxidizing agents. Ethanolamine. CrO<sub>3</sub>, KMnO<sub>4</sub>, peroxy acid, perchloric acid, chromic acid. non-metal halides. alkali hydroxides.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases. Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Glacial acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg
LD50 oral	600 mg/kg
LD50 dermal rabbit	1060 mg/kg
Additional information	LDLo inhalativ/15min. 5620 ppm mou

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 2.5
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 2.5
Additional information	: risk of corneal clouding
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified

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Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

### Glacial acetic acid (64-19-7)

Viscosity, kinematic	1.46 mm <sup>2</sup> /s
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Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Glacial acetic acid (64-19-7)

LC50 fish 1	410 mg/l Goldorfe
LC50 other aquatic organisms 1	47 mg/l 24 h. Daphnia magna
Pneumonas putida	2850 mg/l; Scenedesmus quadricauda: 4000 mg/l

### 12.2. Persistence and degradability

#### Glacial acetic acid (64-19-7)

Persistence and degradability	Not established.
Biochemical oxygen demand (BOD)	0.88 g O <sub>2</sub> /g substance
BOD (% of ThOD)	36 % ThOD

### 12.3. Bioaccumulative potential

#### Glacial acetic acid (64-19-7)

Log Pow	-0.31
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

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### SECTION 14: Transport information

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

ADR	IATA
<b>14.1. UN number</b>	
2789	2789
<b>14.2. UN proper shipping name</b>	
ACETIC ACID, GLACIAL	Not applicable
<b>14.3. Transport hazard class(es)</b>	
8 (3)	8
	Not applicable
<b>14.4. Packing group</b>	
II	Not applicable
<b>14.5. Environmental hazards</b>	
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  
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  
EAC code : •2P  
APP code : A(fl)

##### - Air transport

No data available

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

Glacial acetic acid is not on the REACH Candidate List

Glacial acetic acid is not on the REACH Annex XIV List

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

**SECTION 16: Other information**

Indication of changes:

1.4	Emergency telephone	Modified	Added additional information
2	Classification (DSD/DPD)	Removed	Obsolete
8.2	Hand protection	Modified	Specified material, thickness, et cetera of gloves

Abbreviations and acronyms:

SDS	Safety Data Sheet
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. REACH Disclaimer:  
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number).

Full text of H- and EUH-statements:

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

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*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*