

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006



Revision date : 03/09/2013

Version 13.1

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

### 1.1 Product identifier

Catalogue No **981**  
Product name **Acetic acid 1/2**  
REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis

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

Société : Laboratoires Dujardin-Salleron 37210 Noizay France Tél. +33 (0)2 47 25 58 25  
courriel : [info@dujardin-salleron.com](mailto:info@dujardin-salleron.com) - site : [www.dujardin-salleron.com](http://www.dujardin-salleron.com)

1.4 Emergency telephone number France : INRS : +33 (0)1 45 42 59 59

## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (Regulation (CE) N° 1272/2008)

Flammable liquid, category 3, H226  
Skin corrosion, Category 1A, H314  
Corrosive to metals, Category 1, H290

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

#### Classification (Directives 67/548/EEC or 1999/45/EC)

Inflammable R10  
C Corrosif R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 2.2 Label elements

#### Labeling (Regulation (CE) N° 1272/2008)

*Hazard pictograms*



*Signal word*

Danger

*Hazard statements*

H290 May be corrosive to metals.  
H226 Flammable liquid and vapor.  
H314 Causes severe skin burns and eye damage.

*Precautionary statements*

Prevention

P210 Keep away from heat.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P309 + P310 IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

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## Labelling (67/548/EEC or 1999/45/EC)

Symbol(s) C Corrosive



C - Corrosif

R-phrase(s) 35 Causes severe burns.

S-phrase(s) 26-30-36/37/39-45 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Never add water to this product. 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).

### 22.3 Other hazards

None known.

## SECTION 3. Composition/informations on ingredients

Chemical nature: Aqueous solution

### 3.1 Substance

Not applicable

### 3.2 Mixture

#### Hazardous components (REGULATION (EC) No 1272/2008)

Chemical Name (Concentration):

acetic acid ( $\geq 45 - < 50\%$ )

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

CAS N°	EC N°	Classification
64-19-7	200-580-7	Flammable liquid, Category 3, H226 Skin corrosion, Category 1A, H314
	Registration number : 01-2119475328-30-xxxx	

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

#### Hazardous components (1999/45/EC)

acetic acid ( $\geq 45 - < 50\%$ )

CAS N°	EC N°	Classification
64-19-7	200-580-7	Flammable, R10 - C, Corrosive, R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

After inhalation: fresh air. Call in physician

After skin contact: wash off with plenty of water. Immediately remove contaminated clothing. If available swab with polyethylene glycol 400. Call a physician immediately.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralize. Pulmonary failure possible after aspiration of vomit.

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

Irritation and corrosion, Nausea, Vomiting, Vomiting, bronchitis, Shortness of breath, gastric spasms, Circulatory collapse, shock, Pneumonia.

Risk of corneal clouding.

Risk of blindness!

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

No information available.

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## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

*Suitable extinguishing media*

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of acetic acid vapours.

### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Suppress (knock down) gases/vapours/mists with a water spray jet. Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6. Accidental release measures

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment: see section 8.

### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralizing material (e.g. Trivorex®). (PREVOR). Dispose of properly.

Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling Advice on safe handling

*Advice on safe handling*

Observe label precautions.

*Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

*Hygiene measures*

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

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

Storage conditions :

Requirements for storage areas and containers

No metal containers.

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Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C.

### 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)

##### *Acetic acid (64-19-7)*

Worker DNEL, acute	Local effects	inhalation	25 mg/m <sup>3</sup>
Worker DNEL, longterm	Local effects	inhalation	25 mg/m <sup>3</sup>
Consumer DNEL, acute	Local effects	inhalation	25 mg/m <sup>3</sup>
Consumer DNEL, longterm	Local effects	inhalation	25 mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC)

##### *Acetic acid (64-19-7)*

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

### 8.2 Exposure controls

#### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

##### *Eye/face protection*

Tightly fitting safety glasses

##### *Hand protection*

full contact:	Glove material:	butyl-rubber
	Glove thickness:	0.7 mm
	Break through time:	> 480 min
Splash contact:	Glove material:	natural latex
	Glove thickness:	0.6 mm
	Break through time:	> 30 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

##### *Other protective equipment*

Flame retardant antistatic protective clothing

##### *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter P E-(P2).

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The company has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

## Environmental exposure controls

Do not let product enter drains.

Risk of explosion.

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	liquid.
Color	colorless.
Odor	pungent.
Odor Threshold	0.24 ppm (anhydrous substance).
pH	strongly acid at 20 °C
Melting point	No information available.
Boiling point/boiling range	ca.103 °C at 1.013 hPa
Flash point	39 °C.
Evaporation rate	No information available.
Flammability (solid, gas)	not applicable
Lower explosion limit	4 % (V).
Upper explosion limit	19.9 % (V).
Vapor pressure	15.2 hPa at 20°C.
Relative vapor density	No information available.
Relative density	1.05 g/cm <sup>3</sup> at 20°C
Water solubility	at 20°C soluble
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	1.17 mPa.s at 25 °C.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

### 9.2 Other data

Ignition temperature	463 °C
Corrosion	May be corrosive to metals.

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Vapour/air-mixtures are explosive at intense warming.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

peroxi compounds, perchloric acid, fuming sulfuric acid, phosphorus halides, hydrogen peroxide, chromium(VI) oxide, potassium permanganate, peroxides, strong oxidizing agents

Risk of ignition or formation of inflammable gases or vapours with:

Metals, iron, zinc, magnesium, mild steel

Possible formation of hydrogen

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Violent reactions possible with:

strong alkalis, anhydrides, aldehydes, alkali hydroxides, nonmetallic halides, ethanolamine, acetaldehyde, alcohols, halogen-halogen compounds, chlorosulfonic acid, chromosulfuric acid, potassium hydroxide, nitric acid.

#### 10.4 Conditions to avoid

Heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

#### 10.5 Incompatible materials

Various metals

#### 10.6 Hazardous decomposition products

in the event of fire: See section 5.

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

##### *Acute oral toxicity*

Symptoms: Nausea, Vomiting, If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach., Pulmonary failure possible after aspiration of vomit.

##### *Acute inhalation toxicity*

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract, Inhalation may lead to the formation of oedemas in the respiratory tract.

##### *Acute dermal toxicity*

This information is not available.

##### *Skin irritation*

Mixture causes severe burns.

##### *Eye irritation*

Mixture causes serious eye damage. Risk of corneal clouding. Risk of blindness!

##### *Sensitisation*

This information is not available.

##### *Germ cell mutagenicity*

This information is not available.

##### *Carcinogenicity*

This information is not available.

##### *Reproductive toxicity*

This information is not available.

##### *Teratogenicity*

This information is not available.

##### *Specific target organ toxicity - single exposure*

This information is not available.

##### *Specific target organ toxicity - repeated exposure*

This information is not available.

##### *Aspiration hazard*

This information is not available.

### 11.2 Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Systemic effects:

Shortness of breath, gastric spasms, shock, bronchitis, acidosis, circulatory collapse, pneumonia.

Absorption may result in damage of the following:

Kidney

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Further data:

Handle in accordance with good industrial hygiene and safety practice

## Components

### Acetic acid

#### Acute oral toxicity

LD50 rat: 3.310 mg/kg (RTECS)

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach, nausea, vomiting, pulmonary failure possible after aspiration of vomit.

#### Acute inhalation toxicity

LCLO rat: 39.95 mg/l; 4 h (RTECS)

LC50 rat: 11.4 mg/l; 4 h (IUCLID)

#### Acute dermal toxicity

LD50 rabbit: 1.060 mg/kg (IUCLID)

#### Skin irritation

rabbit

Result: Causes burns (IUCLID)

#### Germ cell mutagenicity Genotoxicity in vitro

Ames test Salmonella typhimurium

Result: negative (National Toxicology Program)

#### Teratogenicity

Did not show teratogenic effects in animal experiments (IUCLID)

## SECTION 12. Ecological information

### Mixture

#### 12.1 Toxicity

No information available.

#### 12.2 Persistence and degradability

No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

#### 12.6 Other adverse effects

#### Addition/ ecological information

Biological effects:

Harmful effect due to pH shift. Caustic even in diluted form.

Further information on ecology

Discharge into the environment must be avoided.

### Components

#### Acetic acid

##### Toxicity to fish

LC50 *Lepomis macrochirus* (Bluegill sunfish): 75 mg/l; 96 h (Lit.)

##### Toxicity to daphnia and other aquatic invertebrates

EC5 *E.sulcatum*: 78 mg/l; 72 h neutral (maximum permissible toxic concentration) (Lit.)

EC50 *Daphnia magna* (Water flea): 47 mg/l; 24 h (Lit.)

##### Toxicity to algae

IC5 *Scenedesmus quadricauda* (Green algae): 4.000 mg/l; 16 h (maximum permissible toxic concentration) (Lit.)

##### Toxicity to bacteria

EC5 *Pseudomonas putida*: 2.850 mg/l; 16 h neutral (maximum permissible toxic concentration) (Lit.)

EC50 *Photobacterium phosphoreum*: 11 mg/l; 15 min microtox test (IUCLID)

##### Biodegradability

99 %; 30 d OECD Test Guideline 301D (HSDB)

Readily biodegradable.

95 %; 5 d

OECD Test Guideline 302B

Readily eliminated from water

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*Biochemical Oxygen Demand (BOD)*

880 mg/g (5 d) (Lit.)

*Ratio BOD/ThBOD* BOD5 76 % (IUCLID)

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

## SECTION 13. Disposal considerations

### *Waste treatment methods*

Waste must be disposed of in accordance with the Directive on waste 2008/98/EC and with local and national regulations. Leave chemicals in original containers. No mixing with other waste. Treat uncleaned containers like the product itself.

## SECTION 14. Transport information

### Land transport (ADR/RID)

14.1 UN number	UN 2789
14.2 Proper shipping name	ACETIC ACID SOLUTION
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for users	yes
Tunnel restriction code	D/E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

14.1 UN number	UN 2789
14.2 Proper shipping name	ACETIC ACID SOLUTION
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for users	no

### Sea transport (IMDG)

14.1 UN number	UN 2789
14.2 Proper shipping name	ACETIC ACID SOLUTION
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for users	yes

EMS F-E S-C

14 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

## SECTION 15. Regulatory information

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

#### *UE regulations*

Major Accident Hazard Legislation	Directive 96/82/EC Flammable 6 Quantity 1: 5.000 t Quantity 2: 50.000 t
Occupational restrictions	Take note of Directive 94/33/EC on the protection of young people at work

#### *National legislation*

Storage class 3

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.



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## SECTION 16. Other informations

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

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

### Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R35	Causes severe burns.

### Training advice

Provide adequate information, instruction and training for operators.

### Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

*The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*