Acetic acid

33209-1L

Version 2.3 Revision Date 18.05.2023 Supersedes 1

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

1.1. Product identifier

Product name	:	Acetic acid
SDS-number	:	000000020238
Type of product	:	Substance
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.
Chemical name	:	Acetic acid
Index-No.	:	607-002-00-6
REACH Registration Number	:	no data available

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

Use of the Substance/Mixture	:	Laboratory chemicals Industrial use
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:		
For further information, please contact:	:	SafetyDataSheet@Honeywell.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical)
Country based Poison	:	see chapter 15.1

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Control Center

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 3
H226 Flammable liquid and vapour.
Skin corrosion Category 1A
H314 Causes severe skin burns and eye damage.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms :

Signal word : Danger

Hazard statements	: H226	Flammable liquid and vapour.
	H314	Causes severe skin burns and eye damage.
Precautionary statements	: P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P284	In case of inadequate ventilation wear respiratory protection.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P302 + P352	IF ON SKIN: Wash with plenty of water.
	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313	IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

Vapours may form explosive mixtures with air. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 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.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Acetic acid	64-19-7 607-002-00-6 200-580-7	Flam. Liq. 3; H226 Skin Corr. 1A; H314	100 %	Eye Irrit. 2; H319:10 - < 25 % Skin Corr. 1B; H314:25 - < 90 % Skin Corr. 1A; H314:>= 90 % Skin Irrit. 2; H315:10 - < 25 %

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
First aider needs to protect himself. Move out of dangerous area. Immediately take off contaminated clothing and rinse body with plenty of water.

Inhalation:
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.

Skin contact:
Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion:
Do NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Extinguishing media which shall not be used for safety reasons:
High volume water jet

5.2. Special hazards arising from the substance or mixture

Flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.
In case of fire hazardous decomposition products may be produced such as:
Carbon monoxide
Carbon dioxide (CO2)

5.3. Advice for firefighters

In the event of fire and/or explosion do not breathe fumes.
Wear self-contained breathing apparatus and protective suit.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.In the event of fire, cool tanks with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Ensure adequate ventilation. Do not breathe vapours or spray mist. Do not get in eyes, on skin, or on clothing.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers
Neutralise with the following product(s):
Neutralize with lime milk or soda and flush with plenty of water.

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Exhaust ventilation at the object is necessary. Use only acid resistant equipment.

Advice on protection against fire and explosion:
Keep away from fire, sparks and heated surfaces. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Use explosion-proof equipment. Keep product and empty container away from heat and sources of ignition. No sparking tools should be used.

Hygiene measures:
Remove and wash contaminated clothing before re-use. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Do not get in eyes, on skin, or on clothing.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:
Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not leave vessels/containers open Avoid product residues in/on containers. Containers should be protected against falling down.

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
Acetic acid	EH40 WEL STEL	50 mg/m3 20 ppm	15 minutes	
Acetic acid	EH40 WEL TWA	25 mg/m3 10 ppm		
Acetic acid	EU ELV TWA	25 mg/m3 10 ppm		Indicative
Acetic acid	EU ELV STEL	50 mg/m3 20 ppm		Indicative

STEL - Short term exposure limit
TWA - Time weighted average

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Acetic acid	Workers / Long-term local effects		25 mg/m3	Inhalation	
Acetic acid	Workers / Acute local effects		25 mg/m3	Inhalation	
Acetic acid	Consumers / Long-term local effects		25 mg/m3	Inhalation	
Acetic acid	Consumers / Acute local effects		25 mg/m3	Inhalation	

Component	Environmental compartment / Value	Remarks
Acetic acid	Fresh water: 3,06 mg/l	Assessment factor: 100
Acetic acid	Marine water: 0,3 mg/l	Assessment factor: 1000
Acetic acid	Sewage treatment plant: 85 mg/l	Assessment factor: 10
Acetic acid	Fresh water sediment: 11,36 mg/kg dw	
Acetic acid	Marine sediment: 1,1 mg/kg dw	
Acetic acid	Soil: 0,47 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Take off all contaminated clothing immediately.
Avoid contact with skin and eyes.
Recommended preventive skin protection
Do not breathe vapours or spray mist.

Engineering measures
Use with local exhaust ventilation.
Prevent vapour buildup by providing adequate ventilation during and after use.

Personal protective equipment
Respiratory protection:
In the case of vapour formation use a respirator with an approved filter.

Hand protection:
Glove material: butyl-rubber
Break through time: > 480 min
Glove thickness: 0,7 mm

Butoject® 898
Gloves must be inspected prior to use.
Replace when worn.
Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:
Safety goggles

Skin and body protection:
acid-proof protective clothing

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	colourless
Odour	:	stinging
molecular weight	:	60,05 g/mol
Melting point/range	:	16 °C
Boiling point/boiling range	:	118 °C at 1.013 hPa

Flammability	:	Not applicable
Upper explosion limit	:	17 %(V)
Lower explosion limit	:	4 %(V)
Flash point	:	40 °C Method: DIN 51755
Auto-ignition temperature	:	485 °C
Decomposition temperature	:	At normal pressure may be distilled without decomposition. Fire or intense heat may cause violent rupture of packages.
pH	:	acidic
Viscosity, kinematic	:	not determined
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	log Pow -0,17
Vapour pressure	:	16 hPa at 20 °C
Vapour pressure	:	74 hPa at 50 °C
Density	:	ca. 1,05 g/cm3 at 20 °C
Relative vapour density	:	No data available

9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	ca. 1,22 mPa.s at 20 °C

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

At normal pressure may be distilled without decomposition.
Fire or intense heat may cause violent rupture of packages.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.
Gives off hydrogen by reaction with metals.

10.4. Conditions to avoid

Heat, flames and sparks.
Keep away from direct sunlight.

10.5. Incompatible materials

Corrosive in contact with metals
Gives off hydrogen by reaction with metals.
Bases
Oxidizing agents
Reducing agents

10.6. Hazardous decomposition products

Stable under recommended storage conditions.
To avoid thermal decomposition, do not overheat.
In case of fire hazardous decomposition products may be produced such as:
Carbon dioxide (CO_2)
Carbon monoxide
Combustion produces caustic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
No data available

Acute dermal toxicity:
No data available

Acute inhalation toxicity:
No data available

Skin irritation:
Classification based on Annex VI of regulation 1272/2008/EC.

Eye irritation:
Classification based on Annex VI of regulation 1272/2008/EC.

Respiratory or skin sensitisation:
No data available

Carcinogenicity:
Species: not specified
Note: Not classified due to data which are conclusive although insufficient for classification.
Germ cell mutagenicity:
Cell type: Chinese Hamster Ovary Cells
Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 473

Test Method: Ames test
Cell type: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative
Method: OECD Test Guideline 471

Test Method: Chromosome aberration test
Species: Rat
Method: Mutagenicity (micronucleus test)
Result: negative

Reproductive toxicity:
Test Type: Pre-/postnatal development
Species: Mouse
Route of Application: Oral
Result: No significant adverse effects were reported

Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
LC50
Species: Oncorhynchus mykiss (rainbow trout)
Value: > 1.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Test substance: REACH dossier “read-across”

Toxicity to aquatic plants:
EC50
static test
Species: Skeletonema costatum (marine diatom)
Value: > 1.000 mg/l
Exposure time: 72 h
Test substance: REACH dossier “read-across”

Toxicity to aquatic invertebrates:
LC50
static test
Species: Daphnia (water flea)

Value: > 1.000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Test substance: REACH dossier “read-across”

12.2. Persistence and degradability

Biodegradability:
Biodegradation: 96 %
Exposure time: 20 d
Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

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 Marine pollutant: no

14.6 Special precautions for user
IMDG Code segregation group (SGG1) – ACIDS,

14.7 Maritime transport in bulk according to IMO instruments
No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC SEVESO III Listed in Regulation : P5c: FLAMMABLE LIQUIDS Number in Regulation: 1.2.5.3	**Quantity**: 5.000.000 kg **Quantity**: 50.000.000 kg	
Substances of very high concern (SVHC)		This product does not contain

		substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

VOC:
Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control), 100 %

VOC:
Directive 2004/42/EC, 100 %

Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
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Estonia	16662; (+372)6269390
Finland	9471977
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Norway	22591300
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Portugal	800250250
Romania	+40 21 318 3606
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Slovenia	+386 1 400 6051
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Switzerland	145
United Kingdom	(+44) 844 892 0111

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	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
	Munich : 089/19240
Latvia	+37167042473

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Acetic acid	:	H226	Flammable liquid and vapour.
		H314	Causes severe skin burns and eye damage.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

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