Glacial Acetic Acid - Kosher Grade

Version	Revision Date:	SDS Number:	Date of last issue: 2020/07/06
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Glacial Acetic Acid - Kosher Grade
Product code : 000000000051012091

Manufacturer or supplier's details

Company : Celanese (Shanghai) International Trading Co., Ltd

Address : 4560 Jinke Road, Zhangjiang, Pudong
Shanghai, China 201210

Telephone : 86-21-38619288

Emergency telephone number : CHEMTREC International phone number: +1-703-527 3887, +86 532 8388-9090 (China, 24h)

E-mail address : HazCom@celanese.com

Recommended use of the chemical and restrictions on use

Recommended use : Chemical intermediate
Cleaning agent
Process chemicals
Plant protection agent

Restrictions on use : None known.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : liquid
Colour : colourless
Odour : pungent

Flammable liquid and vapour. May be harmful if swallowed. Causes severe skin burns and eye damage.

GHS Classification

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 5

Skin corrosion/irritation : Sub-category 1A

Serious eye damage/eye irritation : Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H303 May be harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statements :

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water.
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/ doctor.
P312 Call a POISON CENTER/ doctor if you feel unwell.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Flammable liquid and vapour.

Health hazards

May be harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS-No.	Concentration (% w/w)
acetic acid	64-19-7	> 99.5

4. FIRST AID MEASURES

General advice : Remove contaminated, soaked clothing immediately and dispose of safely
Pay attention to own protection
In any case show the physician the Safety Data Sheet

If inhaled : Move to fresh air.
Keep at rest.
Call a physician or poison control centre immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Obtain medical attention.

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

If swallowed : If conscious, drink plenty of water.
If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms and effects, both acute and delayed : Vapours may cause irritation to the eyes, respiratory system and the skin.
Respiratory disorder
May be harmful if swallowed.
Causes serious eye damage.
Causes severe burns.

Notes to physician : Treat symptomatically
In case of lung irritation, first treatment with dexametason aerosol (spray).
In case of choking: gastroscopy inclusive of aspiration and acidosis compensation.

5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Nitrogen oxides (NOx)
Specific extinguishing methods	:	Cool containers/tanks with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Avoid contact with the skin and the eyes. Keep away from heat and sources of ignition. Provide adequate ventilation.
Environmental precautions	:	Prevent further leakage or spillage. Do not discharge large quantities of concentrated spills or residues into surface water or sanitary sewer system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Advice on protection against fire and explosion	:	Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Ground/bond container and receiving equipment. In case of fire, use water spray.

Normal measures for preventive fire protection.

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.

Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Avoidance of contact : Amines
Bases

Storage

Conditions for safe storage : Store locked up.
Keep in a dry, cool and well-ventilated place.
Keep container tightly closed in a dry and well-ventilated place.
Handle and open container with care

Materials to avoid : Keep away from amines.
Bases

Do not store near acids.

Further information on storage stability : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
acetic acid	64-19-7	PC-TWA	10 mg/m3	CN OEL
		PC-STEL	20 mg/m3	CN OEL
		TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
Equipment should conform to EN 136 or EN 140 and EN 143.
Use NIOSH approved respiratory protection.

Filter type : Acidic gas/vapour type

Eye/face protection : Tightly fitting safety goggles

In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.
Equipment should conform to EN 166.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hand protection
- Material : butyl-rubber
- Break through time : 480 min
- Glove thickness : 0.3 mm
- Guideline : Protective gloves complying with EN 374.
- Manufacturer : Class 6

Remarks : Protective gloves
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Protective measures : Do not get in eyes, on skin, or on clothing.
Do not breathe vapours or spray mist.
Use only in an area equipped with a safety shower.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures : When using do not eat, drink or smoke.
Take off all contaminated clothing immediately.
Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : colourless

Odour : pungent

Odour Threshold : 24.3 ppm

pH : 2.4
Concentration: 60 g/l

Melting point/ range : 17 °C

Boiling point/boiling range : 118 °C (1,013 hPa)

Flash point	:	39 °C Method: closed cup
Evaporation rate	:	0.97
Upper explosion limit / Upper flammability limit	:	19.9 %(V)
Lower explosion limit / Lower flammability limit	:	4 %(V)
Vapour pressure	:	77 hPa (50 °C)
Relative vapour density	:	2.07 (Air = 1.0)
Density	:	1.045 g/cm³ (25 °C)
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	miscible Solvent: Acetone miscible Solvent: Benzene miscible Solvent: Diethylether miscible Solvent: Ethanol soluble Solvent: Chloroform
Partition coefficient: n-octanol/water	:	log Pow: -0.170 measured data
Auto-ignition temperature	:	463 °C
Decomposition temperature	:	not determined
Viscosity		
Viscosity, dynamic	:	1.056 mPa.s (25 °C)
Viscosity, kinematic	:	not determined
Explosive properties	:	not applicable based on consideration of the structure
Oxidizing properties	:	not applicable based on consideration of the structure

Surface tension	:	27.1 mN/m, 25 °C
Molecular weight	:	60.05 g/mol

10. STABILITY AND REACTIVITY

Reactivity	:	Stable under normal conditions.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Keep away from fire, sparks and heated surfaces. Keep away from heat and sources of ignition. Take action to prevent static discharges.
Incompatible materials	:	Amines Bases
Hazardous decomposition products	:	Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

May be harmful if swallowed.

Components:

acetic acid:

Acute oral toxicity	:	LD50 (Rat): 3,310 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 40 mg/l Exposure time: 4 h Test atmosphere: gas

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks	:	Extremely corrosive and destructive to tissue.

Components:

acetic acid:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Corrosive

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

Components:

acetic acid:

Species : Rabbit
Result : Corrosive
Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Not classified due to lack of data.

Components:

acetic acid:

Result : Not a skin sensitizer.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

acetic acid:

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: mammalian cells
Method: Mutagenicity (micronucleus test)
Test substance: Acetic anhydride
Remarks: negative

Carcinogenicity

Not classified due to lack of data.

Components:

acetic acid:

Result : No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Not classified due to lack of data.

Components:

acetic acid:

Effects on foetal development : Test Type: Pre-/postnatal development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: NOAEL: 1,600 mg/kg bw/day
Method: Regulation (EC) No. 440/2008, Annex, B.31
Result: No evidence of reproductive and developmental toxicity

Test Type: Pre-/postnatal development
Species: Rat
Application Route: Oral
Developmental Toxicity: NOAEL: 1,600 mg/kg bw/day
Method: Regulation (EC) No. 440/2008, Annex, B.31
Result: No evidence of reproductive and developmental toxicity

Test Type: Pre-/postnatal development
Species: Mouse
Application Route: Oral
Developmental Toxicity: NOAEL: 1,600 mg/kg bw/day
Method: Regulation (EC) No. 440/2008, Annex, B.31
Result: No evidence of reproductive and developmental toxicity

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

Repeated dose toxicity

Components:

acetic acid:

Species : Rat, male
NOAEL : 290 mg/kg bw/d
Application Route : Oral
Exposure time : 8 weeks
Remarks : No adverse effects

Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks : No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

acetic acid:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 300.82 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 300.82 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Skeletonema costatum (marine diatom)): > 300.82 mg/l Exposure time: 72 h Method: ISO 10253
Toxicity to microorganisms	:	EC3 (Pseudomonas putida): 850 mg/l Exposure time: 16 h

Persistence and degradability

Components:

acetic acid:

Biodegradability	:	Result: Readily biodegradable. Method: OECD Test Guideline 301C

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Results of PBT and vPvB assessment	:	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII
Additional ecological information	:	No data available

Components:

acetic acid:

Results of PBT and vPvB assessment	:	The substance does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of as hazardous waste in compliance with local and national regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 2789
Proper shipping name	:	ACETIC ACID, GLACIAL
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
Environmentally hazardous	:	no

IATA-DGR

UN/ID No.	:	UN 2789
Proper shipping name	:	Acetic acid, glacial
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	Corrosive, Flammable Liquids
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851

IMDG-Code

UN number	:	UN 2789
Proper shipping name	:	ACETIC ACID, GLACIAL

Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
EmS Code	:	F-E, S-C
Marine pollutant	:	no

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number	:	UN 2789
Proper shipping name	:	ACETIC ACID, GLACIAL
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
Marine pollutant	:	no

JT/T 617

UN number	:	UN 2789
Proper shipping name	:	ACETIC ACID, GLACIAL
Class	:	8
Subsidiary risk	:	3
Packing group	:	II
Labels	:	8 (3)
Environmentally hazardous	:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. REGULATORY INFORMATION

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code	Chemical name / Category	Threshold quantity
W5.4	Flammable liquids	5,000 t

Hazardous Chemicals for Priority Management under SAWS : Not listed

Catalogue of Specially Controlled Hazardous Chemicals : Not listed

List of Explosive Precursors : Not listed

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export : Not listed

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed

Regulations on the Administration of Controlled Chemicals

List of Controlled Chemicals : Not listed

Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances : Not listed

List of Controlled Ozone Depleting Substances Import and Export : Not listed

Environmental Protection Law

List of Priority Controlled Chemicals : Not listed

List of Key Controlled New Pollutants : Not listed

16. OTHER INFORMATION

Revision Date : 2025/06/19

Date format : yyyy/mm/dd

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CN OEL	:	Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CN OEL / PC-TWA	:	Permissible concentration - time weighted average
CN OEL / PC-STEL	:	Permissible concentration - short term exposure limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with

x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

CN / EN