

# SAFETY DATA SHEET



## Acetic acid glacial 99.85%

Version        Revision Date:  
7.0            12/09/2020

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### SECTION 1. IDENTIFICATION

Product name                                : Acetic acid glacial 99.85%

#### Manufacturer or supplier's details

Company name of supplier        : Transchem, Inc.

Address                                        : 2141 Palomar Airport Rd. Suite 125  
Carlsbad, CA 92011

Telephone                                    : (800) 783 - 2436

E-mail address of person  
responsible for the SDS                : compliance@transcheminc.com

Emergency telephone                    : Chemtel EmergencyResponse: (800) 255-3924

#### 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.

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### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids                        : Category 3

Skin corrosion                             : Category 1A

Serious eye damage                      : Category 1

#### GHS label elements

Hazard pictograms                        :



Signal Word                                : Danger

Hazard Statements                        : H226 Flammable liquid and vapor.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

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Precautionary Statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
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.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P363 Wash contaminated clothing before reuse.  
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.  
P405 Store locked up.

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

**Other hazards**  
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous ingredients

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

### SECTION 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

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- If inhaled : Move to fresh air.  
Keep at rest.  
Call a physician or poison control center 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 : Vapors may cause irritation to the eyes, respiratory system and the skin.  
Respiratory disorder
- 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.
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### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)
- Further information : Cool containers/tanks with water spray.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
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### SECTION 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.
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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.

### SECTION 7. HANDLING AND STORAGE

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 vapors). Ground/bond container and receiving equipment. In case of fire, use water spray.

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

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

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		TWA	10 ppm 25 mg/m <sup>3</sup>	NIOSH REL
		ST	15 ppm 37 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm 25 mg/m <sup>3</sup>	OSHA Z-1
		TWA	10 ppm 25 mg/m <sup>3</sup>	OSHA P0

#### Personal protective equipment

Respiratory protection : In the case of vapor 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/vapor type

Hand protection  
Material : butyl-rubber

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Break through time	:	480 min
Glove thickness	:	0.3 mm
Directive	:	Protective gloves complying with EN 374.
Manufacturer	:	Class 6
Remarks	:	Protective gloves
Eye 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
Protective measures	:	Do not get in eyes, on skin, or on clothing. Do not breathe vapors 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.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	colorless
Odor	:	pungent
Odor Threshold	:	24.3 ppm
pH	:	2.4 Concentration: 60 g/l
Melting point/range	:	62.6 °F
Boiling point/boiling range	:	244.4 °F (1,013 hPa)
Flash point	:	39 °C Method: closed cup
Evaporation rate	:	0.97
Upper explosion limit	:	19.9 %(V)
Lower explosion limit	:	4 %(V)
Vapor pressure	:	77 hPa (50 °C)
Relative vapor density	:	2.07 (Air = 1.0)

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Density	:	1.045 g/cm <sup>3</sup> (25 °C)
Solubility(ies)	:	
Water solubility	:	miscible
Solubility in other solvents	:	miscible Solvent: Acetone
		miscible Solvent: Benzene
		miscible Solvent: Diethyl ether
		miscible Solvent: Ethanol
		soluble Solvent: Chloroform
Partition coefficient: n-octanol/water	:	log Pow: -0.170 measured data
Autoignition temperature	:	463 °C
Decomposition temperature	:	not determined
Viscosity	:	
Viscosity, dynamic	:	1.056 mPa.s (25 °C)
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

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### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under normal conditions.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
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

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

##### Ingredients:

##### acetic acid:

Acute oral toxicity : LD50 (Rat): 3,310 mg/kg

Acute inhalation toxicity : LC50 (Rat): 40 mg/l  
Exposure time: 4 h

#### Skin corrosion/irritation

##### Ingredients:

##### acetic acid:

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

#### Serious eye damage/eye irritation

##### Ingredients:

##### acetic acid:

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

#### Respiratory or skin sensitization

##### Ingredients:

##### acetic acid:

Result: Not a skin sensitizer.

#### Germ cell mutagenicity

##### Ingredients:

##### 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  
Species: 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

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Species: mammalian cells  
Method: Mutagenicity (micronucleus test)  
Test substance: Acetic anhydride  
Remarks: negative

### Carcinogenicity

#### Ingredients:

##### acetic acid:

Result: No evidence of carcinogenicity in animal studies.

### Reproductive toxicity

#### Ingredients:

##### acetic acid:

Effects on fetal 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

### Repeated dose toxicity

#### Ingredients:

##### acetic acid:

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



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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Ingredients:

##### 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 : EC50 (Daphnia magna (Water flea)): > 300.82 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae : 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

##### Ingredients:

##### 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 : The substance does not meet the criteria for PBT / vPvB  
assessment according to REACH, Annex XIII
- Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82  
Protection of Stratospheric Ozone - CAA Section 602 Class I  
Substances  
Remarks: This product neither contains, nor was  
manufactured with a Class I or Class II ODS as defined by the  
U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A +  
B).

##### Ingredients:

##### acetic acid:

- Results of PBT and vPvB : The substance does not meet the criteria for PBT / vPvB

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assessment

according to REACH, Annex XIII

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### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

Waste Code           : D001: Ignitability  
                           : D002: Corrosivity

Waste from residues     : Dispose of as hazardous waste in compliance with local and national regulations.  
                           : Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging   : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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### SECTION 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)

##### 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.

#### Domestic regulation

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### 49 CFR

UN/ID/NA number : UN 2789  
Proper shipping name : Acetic acid, glacial  
  
Class : 8  
Subsidiary risk : 3  
Packing group : II  
Labels : CORROSIVE, FLAMMABLE LIQUID  
ERG Code : 132  
Marine pollutant : no

## SECTION 15. REGULATORY INFORMATION

### EPCRA - Emergency Planning and Community Right-to-Know

#### CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
acetic acid	64-19-7	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

A characteristic waste RQ of 100 lbs applies to this product in a waste form: D001, D002

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Fire Hazard  
Acute Health Hazard

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

acetic acid	64-19-7	99.85 %
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### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

acetic acid	64-19-7	99.85 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

acetic acid	64-19-7	99.85 %
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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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### SECTION 16. OTHER INFORMATION

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

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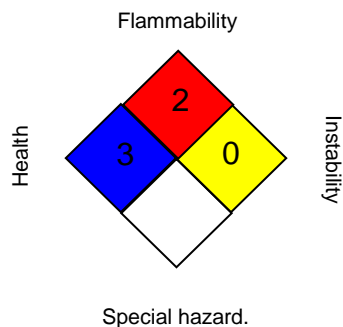
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### Further information

#### NFPA:



#### HMIS® IV:

<b>HEALTH</b>		<b>3</b>
<b>FLAMMABILITY</b>		<b>2</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Revision Date : 07/06/2020

The information provided in this Material 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.

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