



## ISO 9001 Quality System Certified Organization

MANUFACTURER & EXPORTER OF LABORATORY CHEMICALS AND OILS

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## MATERIAL SAFETY DATA SHEET (MSDS) SDS/MSDS

### Acetic Acid Glacial

#### 1.1. Identification

Product form : Substance

Substance name : Acetic Acid

CAS-No. : 64-19-7

Formula : C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>

Synonyms : Acetic acid, glacial / alcohol of vinegar / carboxylic acid C<sub>2</sub> / ethanoic acid / ethylic acid / methanecarboxylic acid / pyroligneous acid / vinegar acid

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Chemical intermediate

Solvent

Food industry: additive

Laboratory chemical

Photographic chemical

Recommended use : Laboratory chemicals

Restrictions on use : Not for food, drug or household use

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3 H226 Flammable liquid and vapor

Acute toxicity (inhalation:vapor) Category 4 H332 Harmful if inhaled

Skin corrosion/irritation Category 1B H314 Causes severe skin burns and eye damage

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage

Hazardous to the aquatic environment - Acute Hazard Category 3 H402 Harmful to aquatic life

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H226 - Flammable liquid and vapor

H314 - Causes severe skin burns and eye damage

H332 - Harmful if inhaled

H402 - Harmful to aquatic life

Precautionary statements (GHS US) : 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.

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P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

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P260 - Do not breathe mist, vapors, spray.

P264 - Wash exposed skin thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective clothing, protective gloves, eye protection, face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Remove/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 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor/physician.

P363 - Wash contaminated clothing before reuse.

P370+P378 - In case of fire: Use carbon dioxide (CO<sub>2</sub>), powder, alcohol-resistant foam to extinguish

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

P405 - Store locked up.

P501 - Dispose of contents/container to comply with local, state and federal regulations.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification

: None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name Product identifier % GHS US classification

Acetic Acid

(Main constituent)

(CAS-No.) 64-19-7 100 Flam. Liq. 3, H226

Acute Tox. 4

(Inhalation:vapour), H332

Skin Corr. 1B, H314

Eye Dam. 1, H318

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Aquatic Acute 3, H402

Full text of hazard classes and 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 : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory

arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised.

Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation : Remove the victim into fresh air. Immediately consult a doctor/medical service. Doctor:

administration of corticoid spray.

First-aid measures after skin contact : Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing

agents without medical advice. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

First-aid measures after eye contact : Rinse immediately with plenty of water for 15 minutes.

Remove contact lenses, if present and

easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice. Take victim to an ophthalmologist.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce

vomiting. Do not apply (chemical) neutralizing agents without medical advice. Immediately consult a doctor/medical service. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)).

Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

#### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms

: Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Causes severe skin burns. Causes serious eye damage.

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Symptoms/effects after inhalation : Coughing. Dry/sore throat. Respiratory difficulties. Corrosion of the upper respiratory tract.

FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of pneumonia. Risk of lung edema.

Symptoms/effects after skin contact : Caustic burns/corrosion of the skin.

Symptoms/effects after eye contact : Corrosion of the eye tissue.

Symptoms/effects after ingestion : Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Blood in vomit.

Diarrhoea. Shock. Low arterial pressure. Enlargement/disease of the liver. Decreased renal function.

Chronic symptoms : Affection/discolouration of the teeth.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO<sub>2</sub> extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand.

Unsuitable extinguishing media : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : DIRECT FIRE HAZARD. Flammable liquid and vapour. Gas/vapor flammable with air within

explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Reactions involving a fire hazard: see "Reactivity Hazard".

Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits.

INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Hazardous decomposition products in case of fire

: Upon combustion: CO and CO<sub>2</sub> are formed.

#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to

heat. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.

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



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### SECTION 6: Accidental release measures

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

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it.

##### 6.1.1. For non-emergency personnel

Protective equipment : Gas-tight suit (EN 943). Corrosion-proof suit (EN 14605).

Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close

doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion-proof appliances and lighting equipment. Corrosion-proof appliances. Keep containers closed. Wash contaminated clothes.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Stop leak if safe to do so. Ventilate area.

#### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

#### 6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply.

Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute combustible/toxic gases/vapours with water spray. Take account of toxic/corrosive precipitation water. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.

Methods for cleaning up : Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite or kieselguhr,

powdered limestone. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

Acetic Acid

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Flammable vapors may accumulate in the container.

Precautions for safe handling : Use spark-/explosionproof appliances and lighting system. Take precautions against

electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local

exhaust/ventilation. Exhaust gas must be neutralised. Comply with the legal requirements.

Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Use corrosionproof equipment. Handle uncleaned empty containers

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as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Keep container tightly closed.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible products : Strong bases. Oxidizing agent. metals.

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

Storage temperature : > 17 °C

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) bases.

metals. alcohols. amines. water/moisture.

Storage area : Store in a dry area. Keep container in a well-ventilated place. Keep out of direct sunlight.

Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Provide the tank with earthing. Detached building. Store only in a limited quantity. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal

requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: stainless steel. aluminium. LDPE (Low Density Poly Ethylene). HDPE.

glass. MATERIAL TO AVOID: iron. zinc. lead. copper. bronze. natural rubber.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

Acetic Acid (64-19-7)

USA - ACGIH - Occupational Exposure Limits

Local name Acetic acid

ACGIH TWA (mg/m<sup>3</sup>) 25 mg/m<sup>3</sup>

ACGIH TWA (ppm) 10 ppm

ACGIH STEL (mg/m<sup>3</sup>) 37 mg/m<sup>3</sup>

ACGIH STEL (ppm) 15 ppm

Remark (ACGIH) TLV<sup>®</sup> Basis: URT & eye irr; pulm func

Regulatory reference ACGIH 2020

USA - OSHA - Occupational Exposure Limits

Local name Acetic acid

OSHA PEL (TWA) (mg/m<sup>3</sup>) 25 mg/m<sup>3</sup>

OSHA PEL (TWA) (ppm) 10 ppm

Regulatory reference (US-OSHA) OSHA Annotated Table Z-1

USA - IDLH - Occupational Exposure Limits

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US IDLH (ppm) 50 ppm

USA - NIOSH - Occupational Exposure Limits

NIOSH REL (TWA) (mg/m<sup>3</sup>) 25 mg/m<sup>3</sup>

NIOSH REL (TWA) [ppm] 10 ppm

NIOSH REL (STEL) (mg/m<sup>3</sup>) 37 mg/m<sup>3</sup>

NIOSH REL (STEL) [ppm] 15 ppm

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8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate

vicinity of any potential exposure. Material should be handled in a laboratory hood whenever possible.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Protective goggles. Gloves. Face shield. Gas mask with filter type E. Chemical resistant apron.

Materials for protective clothing:

GIVE LESS RESISTANCE: natural rubber. GIVE POOR RESISTANCE: polyethylene. PVA

Hand protection:

Protective gloves against chemicals (EN 374)

Eye protection:

Protective goggles (EN 166)

Skin and body protection:

Head/neck protection. Corrosion-proof clothing (EN 14605)

Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit. High vapour/gas concentration: compressed air apparatus (EN 136 + EN 137)

Personal protective equipment symbol(s):

Thermal hazard protection:

None necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Color : Colourless

Odor : Irritating/pungent odour Vinegar odour

Odor threshold : No data available

pH : 2.4 (0.1 mol/l)

Melting point : 17 °C (1013 hPa)

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Freezing point : No data available

Boiling point : 118 °C (1013 hPa)

Critical temperature : 322 °C

Critical pressure : 45300 hPa

Flash point : 39 °C (1013 hPa)

Relative evaporation rate (butyl acetate=1) : 0.97

Relative evaporation rate (ether=1) : 11

Flammability (solid, gas) : No data available

Vapor pressure : 20.79 hPa (25 °C)

Relative vapor density at 20 °C : 2.1

Relative density : 1.04 (25 °C)

Relative density of saturated gas/air mixture : 1

Specific gravity / density : 1040 kg/m<sup>3</sup> (25 °C)

Molecular mass : 60.05 g/mol

Solubility : Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in tetrachloromethane. Soluble in glycerol.

Water: 60.3 g/100ml (25 °C)

Ethanol: complete

Ether: complete

Acetone: complete

Log Pow : -0.17 (Experimental value, 25 °C)

Auto-ignition temperature : 463 °C (1013 hPa)

Decomposition temperature : No data available in the literature

Viscosity, kinematic : 1.168 mm<sup>2</sup>/s

Viscosity, dynamic : 1.056 mPa·s (25 °C)

Explosion limits : 4 – 19.9 vol %

Lower explosive limit (LEL): 4 vol %

Upper explosive limit (UEL): 19.9 vol %

Explosive properties : No data available.

Oxidizing properties : No data available.

9.2. Other information

Specific conductivity : 500000 pS/m (0 °C)

VOC content : 100 %

Other properties : Gas/vapour heavier than air at 20°C. Clear. Hygroscopic. Volatile. Substance has acid reaction.

## SECTION 10: Stability and reactivity

## 10.1. Reactivity

Violent to explosive reaction with many compounds e.g.: with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (some) bases.

## 10.2. Chemical stability

Hygroscopic.



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10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

10.4. Conditions to avoid

Extremely high or low temperatures. Incompatible materials.

10.5. Incompatible materials

May react violently with alkalis. May react with bases, copper, silver, mercury, magnesium, zinc and their alloys.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

Acetic Acid (64-19-7)

LD50 oral rat 3310 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 6 day(s))

LC50 Inhalation - Rat 11.4 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value,

Inhalation (vapours), 14 day(s))

ATE US (oral) 3310 mg/kg body weight

ATE US (vapors) 11.4 mg/l/4h

ATE US (dust, mist) 11.4 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.

pH: 2.4 (0.1 mol/l)

Serious eye damage/irritation : Causes serious eye damage.

pH: 2.4 (0.1 mol/l)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : 1.168 mm<sup>2</sup>/s

Likely routes of exposure : Inhalation. Skin and eye contact.

Potential Adverse human health effects and symptoms

: Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Causes severe skin burns.

Causes serious eye damage.

Symptoms/effects after inhalation : Coughing. Dry/sore throat. Respiratory difficulties. Corrosion of the upper respiratory tract.

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FOLLOWING SYMPTOMS MAY APPEAR LATER: Risk of pneumonia. Risk of lung edema.  
Symptoms/effects after skin contact : Caustic burns/corrosion of the skin.  
Symptoms/effects after eye contact : Corrosion of the eye tissue.  
Symptoms/effects after ingestion : Burns to the gastric/intestinal mucosa. Possible esophageal perforation. Blood in vomit.  
Diarrhoea. Shock. Low arterial pressure. Enlargement/disease of the liver. Decreased renal function.  
Chronic symptoms : Affection/discolouration of the teeth.

## SECTION 12: Ecological information

## 12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not included in the list of substances which may contribute to the greenhouse effect (IPCC).

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Not harmful to crustacea. Not harmful to fishes. Not harmful to algae. Not harmful to bacteria.

pH shift.

Acetic Acid (64-19-7)

LC50 fish 1 > 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)

EC50 Daphnia 1 > 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static

system, Fresh water, Experimental value, GLP)

## 12.2. Persistence and degradability

Acetic Acid (64-19-7)

Persistence and degradability Readily biodegradable in the soil. Readily biodegradable in water.

Biochemical oxygen demand (BOD) 0.6 – 0.74 g O<sub>2</sub>/g substance

Chemical oxygen demand (COD) 1.03 g O<sub>2</sub>/g substance

ThOD 1.07 g O<sub>2</sub>/g substance

## 12.3. Bioaccumulative potential

Acetic Acid (64-19-7)

BCF fish 1 3.16 (Pisces, Fresh water, QSAR)

Log Pow -0.17 (Experimental value, 25 °C)

Bioaccumulative potential Not bioaccumulative.

## 12.4. Mobility in soil

Acetic Acid (64-19-7)

Surface tension 26.3 mN/m (30 °C)

Ecology - soil Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.

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12.5. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Waste disposal recommendations : Do not discharge into drains or the environment. Dispose of at authorized waste collection

point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No

1357/2014 and Regulation (EU) No 2017/997.

### SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2789 Acetic acid, glacial (with more than 80 percent acid, by mass), 8 (3), II

UN-No.(DOT) : UN2789

Proper Shipping Name (DOT) : Acetic acid, glacial with more than 80 percent acid, by mass

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : II - Medium Danger

Subsidiary risk (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 8 - Corrosive

3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Special Provisions (49 CFR 172.102) : A3 - For combination packaging, if glass inner packaging (including ampoules) are used, they

must be packed with absorbent material in tightly closed metal receptacles before packing in outer packaging.

A6 - For combination packaging, if plastic inner packaging are used, they must be packed in tightly closed metal receptacles before packing in outer packaging.

A7 - Steel packaging must be corrosion-resistant or have protection against corrosion.

A10 - When aluminum or aluminum alloy construction materials are used, they must be resistant to corrosion.

B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.

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IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where:  $t_r$  is the maximum mean bulk temperature during transport,  $t_f$  is the temperature in degrees celsius of the liquid during filling, and  $a$  is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling ( $t_f$ ) and the maximum mean bulk temperature during transportation ( $t_r$ ) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where:  $d_{15}$  and  $d_{50}$  are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Quantity Limitations Passenger aircraft/rail  (49 CFR 173.27)

: 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)

: 30 L

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Other information : No supplementary information available.

**SECTION 15: Regulatory information**

**15.1. US Federal regulations**

Acetic Acid (64-19-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Not subject to reporting requirements of the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) 5000 lb

SARA Section 311/312 Hazard Classes Physical hazard - Flammable (gases, aerosols, liquids, or solids)

Health hazard - Skin corrosion or Irritation

Health hazard - Serious eye damage or eye irritation

Health hazard - Acute toxicity (any route of exposure)

All components of this product are listed, or excluded from listing, on the United States

Environmental Protection Agency Toxic

Substances Control Act (TSCA) inventory

**15.2. International regulations**

CANADA

Acetic Acid (64-19-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

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No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: Other information

Full text of H-phrases: see section 16:

H226 Flammable liquid and vapor

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H332 Harmful if inhaled

H402 Harmful to aquatic life

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient

temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT

react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

Information in this SDS is from available published sources and is believed to be accurate