

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name : Acetic Acid, 4M

Product Number I : AA1001

CAS-No. : 64-19-7 (Acetic Acid); 7732-18-5 (Water)

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

Identified uses : Laboratory chemicals, Manufacture of substances

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

Company : Gojira Fine Chemicals  
5386 Majestic Parkway, Suite 7  
Bedford Heights, OH 44146 USA

Telephone : 440-252-5397

Email : [docsupport@gojiraafc.com](mailto:docsupport@gojiraafc.com)

Fax : 888-211-5523

#### 1.4 Emergency telephone number

Emergency Phone # : 800-255-3924 (ChemTel Contract# MIS7318160)

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 3), H226

Skin corrosion (Category 1A), H314

Serious eye damage (Category 1), H318

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

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

Pictogram



Signal word : Danger

Hazard statement(s)

H314

Causes severe skin burns and eye damage.

H402

Harmful to aquatic life.

Precautionary statement(s)

P260

Do not breathe mist, spray, vapors

P264

Wash exposed skin thoroughly after handling.

P273

Avoid release to the environment.

P280	Wear protective gloves/ protective clothing/ 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 + P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
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 or doctor/ physician.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Chemical characterization	: Natural product
Synonyms	: Glacial acetic acid
Formula	: C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>
Molecular weight	: 60.05 g/mol
CAS-No.	: 64-19-7
EC-No.	: 200-580-7
Index-No.	: 607-002-00-6
Registration number	: 01-2119475328-30-XXXX

#### Hazardous components

Component	Classification	Concentration
<b>Water</b> (CAS# 7732-18-5)	Not classified	75%
<b>Acetic acid</b> (CAS# 64-19-7)		
	Flam. Liq. 3; Skin Corr. 1A; Eye Dam. 1; H226, H314, H318	25%

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

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

Never give anything by mouth to an unconscious person. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

Obtain medical assistance.

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### 5. FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Exercise caution. Prevent fire-fighting water from entering environment.

#### 5.4 Further information

Use water spray to cool unopened containers.

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### 6. ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

#### 6.4 Reference to other sections

For disposal see section 13.

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### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Acetic acid	64-19-7	TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Pulmonary function		

		Upper Respiratory Tract irritation Eye irritation		
		STEL	15.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Pulmonary function Upper Respiratory Tract irritation Eye irritation		
		ST	15.000000 ppm 37.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		Can be found in concentrations of 5-8% in vinegar		
		TWA	10.000000 ppm 25.000000 mg/m3	USA. NIOSH Recommended Exposure Limits
		Can be found in concentrations of 5-8% in vinegar		
		TWA	10.000000 ppm 25.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		
		TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Pulmonary function Upper Respiratory Tract irritation Eye irritation		
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Pulmonary function Upper Respiratory Tract irritation Eye irritation		
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure Limits
		Can be found in concentrations of 5-8% in vinegar		
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		Can be found in concentrations of 5-8% in vinegar		
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		

## 8.2 Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Protective clothing

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

a) Appearance	Form: liquid Colour: colourless
b) Odour	Vinegar odor
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	Non flammable
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	1.03 g/cm <sup>3</sup> at 25 °C (77 °F)
n) Water solubility	completely miscible
o) Partition coefficient: n-octanol/water	
p) Auto-ignition temperature	No data available
q) Decomposition	No data available

temperature

- r) Viscosity 1.5cSt
- s) Explosive properties No data available
- t) Oxidizing properties No data available

## 9.2 Other safety information

No additional information available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Thermal decomposition generates: Corrosive vapors

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

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

### 10.4 Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5 Incompatible materials

Strong oxidizers, metals. Strong bases.

### 10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Thermal decomposition generates: Corrosive vapors.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Likely routes of exposure

Inhalation, skin and eye contact

#### Acute toxicity

Not classified

Acetic Acid:	LD50 oral rat ATE US (oral)	3310 mg/kg body weight (Rat; Other) 3310 mg/kg body weight
Water:	LD50 oral rat ATE US (oral)	≥ 90000 mg/kg 900000 mg/kg body weight

#### Skin corrosion/irritation

Causes severe skin burns and eye damage

#### Serious eye damage/eye irritation

Causes serious eye damage

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

**Reproductive toxicity**

No data available

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

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**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

No additional information available

**12.2 Persistence and degradability**

Biodegradability                      aerobic - Exposure time 30 d  
Result: 99 % - Readily biodegradable  
Remarks: Expected to be biodegradable

Biochemical Oxygen                  0.6 – 0.74 g O<sub>2</sub>/g substance  
Demand (BOD)

Chemical Oxygen                      1.03 g O<sub>2</sub>/g substance  
Demand (COD)

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

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

Surface tension: 0.028N/m (20°C)

Log K<sub>oc</sub>:                      log K<sub>oc</sub>; 0.06; QSAR

Ecology – soil:              May be harmful to plant growth, blooming and fruit formation

**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**

Additional ecological                  No data available

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging/waste materials

Dispose of as unused product. Avoid release to the environment

## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 2790      Class: 8 (3)      Packing group: III  
Proper shipping name: Acetic acid solution  
Reportable Quantity (RQ): 5000 lbs

Poison Inhalation Hazard: No

DOT Packaging Non Bulk: 49 CFR 173.203

DOT Packaging Bulk: 49 CFR 173.242

DOT Packaging Exceptions: 49 CFR 173.154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27): 5L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75): 60L

### IMDG

UN number: 2790      Class: 8 (3)      Packing group: III      EMS-No: F-E, S-C  
Proper shipping name: ACETIC ACID SOLUTION

### IATA

UN number: 2790      Class: 8 (3)      Packing group: III  
Proper shipping name: Acetic acid solution

## 15. REGULATORY INFORMATION

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

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.

### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

International regulations

CANADA

Acetic Acid, 25%	
WHMIS Classification	Class E – Corrosive Material



Water (7732-18-5)	
WHMIS Classification	Uncontrolled product according to WHMIS classification.

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. OTHER INFORMATION

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

Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
Skin Corr.	Skin corrosion

### HMIS Rating

Health hazard:	3
Chronic Health Hazard:	*
Flammability:	2
Physical Hazard	0

### NFPA Rating

Health hazard:	3
Fire Hazard:	2
Reactivity Hazard:	0

### Further information

The above information is believed to be accurate and represents the best information currently available to Gojira Fine Chemicals. However, we make no warranty or merchantability or any other warranty, express or Implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Gojira Fine Chemicals be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Gojira Fine Chemicals has been advised of the possibility of such damages.

