



## Safety Data Sheet

Date of Issue: 06.11.2024

Date of Expiry: 06.11.2029

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

**Manufacturer** : Avantor Performance Materials Poland S.A.  
Sowinskiego 11str., 44-101 Gliwice, Poland

<b>Product Name</b>	<b>Acetic Acid, Glacial</b>
<b>Product Code</b>	V193-46
<b>CAS No.</b>	64-19-7

**Recommended use** : Laboratory Investigations

### 2: Hazard's identification

#### 2.1 GHS Classification

Flammable liquids (Category 3)  
Corrosive to Metals (Category 1)  
Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 4)  
Acute toxicity, Dermal (Category 4)  
Skin corrosion/irritation (Category 1B)  
Serious eye damage/eye irritation (Category 1)  
Specific target organ toxicity - repeated exposure (Category 2)

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

##### Pictogram



**Signal Word** : **Danger**

##### Hazard Statements

H226 Flammable liquid and vapor.  
H290 May be corrosive to metals.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H373 May cause damage to organs through prolonged or repeated exposure.

##### Precautionary Statements

###### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.

- P260 Do not breathe mist or vapors.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### Response

- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
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.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

### 2.3 Other hazards

Lachrymator.

## 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms	:	Glacial acetic acid, Ethanoic acid
Formula	:	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>
Molecular weight	:	60.05 g/mol
Concentration	:	> 99 %

## 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

### 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

No data available

## 5: Firefighting measures

### 5.1 Extinguishing media

### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

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

### **Carbon oxides**

Not combustible.

Forms explosive mixtures with air at elevated temperatures.

Ambient fire may liberate hazardous vapours.

## **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## **5.4 Further information**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## **6: Accidental release measures**

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

Advice for non-emergency personnel:

Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation.

Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains. Risk of explosion.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material. Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

## **7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

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

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Moisture sensitive.

## Storage class

Storage class (TRGS 510): 3: Flammable liquids

## 7.3 Specific end use(s)

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

## 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Acetic acid	64-19-7	WES-TWA	WES-TWA	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-STEL	15 ppm 37 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

### 8.2 Exposure controls

#### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

##### 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

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridge 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.

##### Control of environmental exposure

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

## 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance

Physical state	:	Liquid
Form	:	Liquid
Colour	:	Colourless

Odour	:	Characteristic
Odour Threshold	:	No data available.
pH	:	2,4
Freezing point	:	16,4 °C
Boiling Point	:	117,9 °C
Flash Point	:	39,4 °C (Closed Cup)
Evaporation Rate	:	0,97 (butyl acetate=1)
Flammability (solid, gas)	:	Class II Combustible Liquid Class II Combustible Liquid
Flammability limit - upper (%)	:	19,9 %(V)
Flammability limit - lower (%)	:	4 %(V)
Vapour pressure	:	2,093 kPa (25 °C)
Vapour density (air=1)	:	2,1 Air=1
Density	:	1,05 g/ml (20 °C)
Relative density	:	1,05 (20 °C)
Solubility(ies)		
Solubility in Water	:	Miscible with water.
Solubility (other)	:	No data available.
Partition coefficient (n-octanol/water)	:	-0,17
Autoignition Temperature	:	426 °C
Decomposition Temperature	:	No data available.
Viscosity	:	No data available.
Explosive properties	:	No data available.
Oxidising Properties	:	No data available.

## 9.2 Other information

Molecular weight	:	60,05 g/mol (C <sub>2</sub> H <sub>4</sub> O <sub>2</sub> )
VOC content	:	EC Directive 2004/42: 1.000 g/l ~100 % (calculated)

## 10: Stability and reactivity

### 10.1. Reactivity

Flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Sparks. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

Acute Toxicity - Oral	LD50 (rat): 3310 mg/kg.
Acute Toxicity – Dermal	Skin - Rabbit Result: Causes burns. - 4 h (OECD Test Guideline 404)
Acute Toxicity Inhalation -	LCLO (rat): 11.4 mg/l /4 hours.

### **Ingestion**

Causes severe burns in oesophagus and stomach, gastric spasms, bloody vomiting, dyspnoea. Risk of perforation in the oesophagus and stomach. Pulmonary failure possible after aspiration of vomit. May cause shock, cardiovascular failure, acidosis and damage to kidneys.

### **Inhalation**

Irritating to the mucous membranes and respiratory tract. May cause bronchitis, pneumonia and pulmonary oedema.

### **Skin**

Causes severe burns.

### **Eye**

Liquid may cause severe burns and permanent injury. Risk of serious damage to eyes. High concentrations of vapours will cause irritation.

### **Respiratory Sensitisation**

Not classified based on available information.

### **Skin Sensitisation**

Not classified based on available information.

### **Germ Cell Mutagenicity**

Not classified based on available information.

### **Carcinogenicity**

Not classified based on available information.

### **Reproductive Toxicity**

Not classified based on available information.

### **STOT- Single Exposure**

Not classified based on available information.

### **STOT -Repeated Exposure**

Not classified based on available information.

### **Chronic effects**

Long term exposure may lead to dental erosion, skin thickening and discolouration, chronic irritation of nose and throat and conjunctivitis.

### **Serious eye damage/irritation**

Eye Damage/Irritation: Category 1

### **Mutagenicity**

No evidence of mutagenic properties.

### **Skin corrosion/irritation**

Skin Corrosion/Irritation: Category 1A

## 12: Ecological information

### 12.1 Toxicity

#### Ecotoxicity

Harmful effect due to pH shift.

#### Persistence and degradability

Biodegradation: 99% / 30 d (closed bottle test).

Readily biodegradable.

#### Mobility

Product miscible in water.

#### Environmental fate

Behaviour in environmental compartments:

Distribution: log P(o/w): -0.17.

#### Bioaccumulative Potential

No bioaccumulation is to be expected ( $\log P(o/w) < 1$ ).

Not expected to pass from aqueous solution into the atmosphere.

#### Biological Properties

Harmful to aquatic life.

#### Environmental Protection

Do not allow to enter waters, waste water, or soil!

#### Acute Toxicity – Fish

LC50 semi static - *Oncorhynchus mykiss* (rainbow trout) > 1,000 mg/l-96hr.

#### Acute Toxicity – Daphnia

EC50 (*Daphnia magna*): > 300 mg/l/48 h.

#### Acute Toxicity – Algae

EC50 - *Skeletonema costatum* - > 1,000 mg/l - 72 h, static test

## 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

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

#### Contaminated packaging

Dispose of as unused product.

## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	2789	2789	2789
14.2	UN Proper Shipping name	ACETIC ACID, GLACIAL	ACETIC ACID, GLACIAL	Acetic acid, glacial

<b>14.3</b>	<b>Transport Hazard Class</b>	8 (3)	8 (3)	8 (3)
<b>14.4</b>	<b>Packaging group</b>	II	II	II
<b>14.5</b>	<b>Environmental Hazards</b>	no	no	no
<b>14.6</b>	<b>Special precautions for user</b>	None		
<b>14.7</b>	<b>Incompatible materials</b>	Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, for example potassium permanganate, Amines, Alcohols, Nitric acid		

#### Other regulations

Hazchem Code : •2P

### 15: Regulatory information

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

##### National regulatory information

HSNO Approval Code: HSR000975

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

### 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company 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 the company has been advised of the possibility of such damages.

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