

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** ACETIC ACID 90% OR GREATER

**Other name(s):** Acetic Acid; AAACE00001; Acetic Acid 90%; Acetic Acid 90% Technical Grade; Acetic Acid Food Grade 90%; Acetic Acid Glacial 99% Food Grade; Acetic Acid Glacial; Glacial Acetic Acid; Ethanoic Acid; Ethylic Acid; Methane Carboxylic Acid; Acetic Acid BP; Acetic Acid 99%; Natural Acetic Acid; Acetic Acid Food Grade; AAACE74040; Acetic Acid Glacial 98%

**Recommended Use of the Chemical and Restrictions on Use** Food applications.

**Supplier:** Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia  
**ABN:** 51 600 546 512  
**Street Address:** 70 Marple Avenue  
Villawood NSW 2163  
Australia

**Telephone Number:** +61 2 8717 2929  
**Facsimile:** +61 2 9755 9611  
**Emergency Telephone:** 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

### Classification of the substance or mixture:

Flammable liquids - Category 3  
Skin Corrosion - Sub-category 1A

**SIGNAL WORD:** POISON



### Hazard Statement(s):

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.

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## Precautionary Statement(s):

### 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 mist / vapours / spray.  
P264 Wash hands 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 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.  
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).  
P363 Wash contaminated clothing before re-use.  
P370 In case of fire:  
P378 Use alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray or water fog can be used to extinguish.

### Storage:

P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

### Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Poisons Schedule (SUSMP):** S6 Poison.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Acetic acid	64-19-7	90-99%	H226 H290 H314
Water	7732-18-5	to 100%	-

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

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Substance No: 000000032464

Issued: 02/06/2013  
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## **Skin Contact:**

If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor. For skin burns, cover with a clean, dry dressing until medical help is available.

## **Eye Contact:**

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

## **Ingestion:**

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

## **Indication of immediate medical attention and special treatment needed:**

Treat symptomatically. Can cause corneal burns.

## **5. FIRE FIGHTING MEASURES**

### **Suitable Extinguishing Media:**

Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray or water fog can be used.

### **Hazchem or Emergency Action Code:** · 2P

### **Specific hazards arising from the substance or mixture:**

Flammable liquid. On burning will emit toxic fumes, including those of oxides of carbon .

### **Special protective equipment and precautions for fire-fighters:**

Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

## **6. ACCIDENTAL RELEASE MEASURES**

### **Emergency procedures/Environmental precautions:**

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Increase ventilation. If contamination of sewers or waterways has occurred advise local emergency services.

### **Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:**

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Neutralise with lime or soda ash. Use non-sparking tools. Collect and seal in properly labelled containers or drums for disposal.

## **7. HANDLING AND STORAGE**

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

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## Precautions for safe handling:

Avoid skin and eye contact and breathing in vapour, mists and aerosols.

May form flammable vapour mixtures with air. Vapour may travel a considerable distance to source of ignition and flash back. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke. Flameproof equipment is necessary in all areas where this chemical is being used. Nearby equipment must be earthed. Take precautionary measures against static discharges.

## Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from sources of heat or ignition. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Acetic acid: 8hr TWA = 25 mg/m<sup>3</sup> (10 ppm), 15 min STEL = 37 mg/m<sup>3</sup> (15 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

## Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. If inhalation risk exists: Use with local exhaust ventilation or while wearing suitable mist respirator. Keep containers closed when not in use.

Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected.

## Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, RUBBER BOOTS, CHEMICAL GOGGLES, FACE SHIELD, SAFETY SHOES, GLOVES (Long), APRON.

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Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Clear Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Strong , Acrid , Vinegar - like
<b>Odour Threshold:</b>	24.3 ppm (gas in air)
<b>Solubility:</b>	Miscible in water.
<b>Specific Gravity:</b>	1.045 @ 25°C
<b>Relative Vapour Density (air=1):</b>	2.07
<b>Vapour Pressure (20 °C):</b>	21 hPa @ 25°C; 77 hPa @ 50°C
<b>Flash Point (°C):</b>	39 (CC)
<b>Flammability Limits (%):</b>	4-19.9
<b>Autoignition Temperature (°C):</b>	463
<b>Melting Point/Range (°C):</b>	17
<b>Boiling Point/Range (°C):</b>	118
<b>Decomposition Point (°C):</b>	Not available
<b>pH:</b>	2.4 @ 60 g/L
<b>Viscosity:</b>	1.056 mPa.s @ 25°C
<b>Evaporation Rate:</b>	0.97
<b>Partition Coefficient:</b>	-0.17 (measured)

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No information available.
<b>Chemical stability:</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Avoid exposure to heat, sources of ignition, and open flame.
<b>Incompatible materials:</b>	Incompatible with strong alkalis , amines , oxidising agents and metals .
<b>Hazardous decomposition products:</b>	Oxides of carbon.

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## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

- Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
- Eye contact:** A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
- Skin contact:** Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
- Inhalation:** Breathing in mists or aerosols may produce respiratory irritation.

**Acute toxicity:**

Oral LD50 (rat): 3,310 mg/kg (1)  
Dermal LD50 (rabbit): 1,060 mg/kg (2)  
Inhalation LC50 (rat): >40,000 mg/m<sup>3</sup> (4h) (1)

- Skin corrosion/irritation:** Corrosive (rabbit). (1)  
**Serious eye damage/irritation:** Corrosive (rabbit). (1)  
**Respiratory or skin sensitisation:** Not a skin sensitiser. (1)

**Chronic effects:** Chronic overexposure to acetic acid may result in pharyngitis, catarrhal bronchitis, and erosion of the teeth. (3)

- Mutagenicity:** Non-mutagenic in AMES test. (1)  
**Carcinogenicity:** No evidence of carcinogenic effects. (1)  
**Reproductive toxicity:** Not known or reported to cause reproductive or developmental toxicity. (1)  
**Specific Target Organ Toxicity (STOT) - single exposure:** No information available.  
**Specific Target Organ Toxicity (STOT) - repeated exposure:** Not classified.  
**Aspiration hazard:** Not classified.

## 12. ECOLOGICAL INFORMATION

- Ecotoxicity** Avoid contaminating waterways.
- Persistence/degradability:** This product is readily biodegradable. (1)
- Bioaccumulative potential:** No information available.
- Mobility in soil:** No information available.
- Log Octanol/Water Partition Coefficient: -0.17
- 48hr EC50 (Daphnia magna): >300.82 mg/L (1)  
96hr LC50 (rainbow trout): >300.82 mg/L (1)

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## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Decontamination and destruction of containers should be considered.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.



**UN No:** 2789  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 3 Flammable Liquid  
**Packing Group:** II  
**Proper Shipping Name or Technical Name:** ACETIC ACID SOLUTION  
**Hazchem or Emergency Action Code:** - 2P

### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN No:** 2789  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 3 Flammable liquid  
**Packing Group:** II  
**Proper Shipping Name or Technical Name:** ACETIC ACID SOLUTION  
**IMDG EMS Fire:** F-E  
**IMDG EMS Spill:** S-C

### Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN No:** 2789  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 3 Flammable Liquid  
**Packing Group:** II  
**Proper Shipping Name or Technical Name:** ACETIC ACID SOLUTION

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## 15. REGULATORY INFORMATION

**Classification:**

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

**Classification of the substance or mixture:**

Flammable liquids - Category 3

Skin Corrosion - Sub-category 1A

**Hazard Statement(s):**

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

**Poisons Schedule (SUSMP):** S6 Poison.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

(1) Supplier Safety Data Sheet; 10/ 2012.

(2) 'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

(3) In 'OSHA Regulated Hazardous Substances Vol 1' (Ed Occupational Safety and Health Administration V.S. Dept. of Labor), (Noyes Publications: New Jersey 1990).  
06/ 2004.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

**Reason(s) for Issue:**

5 Yearly Revised Primary SDS

Alignment to GHS requirements

Addition of PPE pictogram(s)

Change in Physical Properties

Change to Hazchem Code

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.