



SALES & SERVICES

HEAD OFFICE

38 May Holman Drive

Bassendean WA 6054

T: (61 8) 6270 4500

F: (61 8) 6270 4544

E: admin@agentsales.com.au

Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : ACETIC ACID SOLUTION

1.2 Other means of identification

Acetic acid, methane carboxylic acid; ethanoic acid, Vinegar acid; Acetic Acid Food Grade; Acetic Acid Technical Grade

1.3 Recommended use of the product and restrictions on use

To be used as an acidulant, acidity modifier, flavour, antioxidant, stabiliser, preservative or bactericidal agent in the food feed industries.

1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

1.5 Emergency telephone number

Telephone : (+61 8) 6270 4500

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.

2.1 GHS Classification

Flammable liquid (Category 3)

Skin corrosion/irritation (Category 1A)

GHS Label elements, including precautionary statements



Pictogram

Signal word : Danger

Hazard statement(s)

H226

Flammable liquid

H314

Causes severe skin burns and eye-damage

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 dust/fume/gas/mist/vapours/spray.
 P264 Wash 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 victim to fresh air and keep at rest in a position that is 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.
 P370+P378 In case of fire: Use dry chemical, carbon dioxide, or alcohol resistant foam for extinction. Use water spray ONLY to cool fire-exposed containers or disperse vapours if they have not ignited.
 P310 Immediately call a POISON CENTRE or doctor/physician.
 P363 Wash contaminated clothing before re-use.

Storage

P403+P233 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

Disposal

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

Other hazards

None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Acetic acid	64-19-7	H226, H314	90
Water	7732-18-5	Not listed	Balance

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

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If inhaled in, move person into fresh air. If not breathing, give artificial respiration. If rapid recovery does not occur, seek medical advice.

In case of skin contact

Remove contaminated clothing and wash affected areas with soap and running water for at least 15 minutes. Launder clothing before reuse. If skin irritation occurs, seek medical advice.

In case of eye contact

In case of eye contact, check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. If eye irritation persists, seek medical advice/attention.

If swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. May aggravate skin and respiratory disorders.

4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Water fog (or if unavailable, fine water spray), foam, dry chemical powder, carbon dioxide

5.2 Special hazards arising from the chemical

Combustible liquid. Will burn if dried and heated with a flame. Will burn if involved in a fire. Incompatible with oxidising agents, reducing agents, strong bases, nitric acid, sulphuric acid, hydrofluoric acid, metals and sources of ignition. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Hazardous Decomposition Products include carbon monoxide, carbon dioxide, formaldehyde, acetaldehyde and smoke.

5.3 Special protective equipment and precautions for fire fighters

Wear positive-pressure self-contained breathing apparatus and suitable protective clothing (or chemical splash suit). Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire-fighting water to reach waterways, drains or sewers. Store fire-fighting water for treatment.

5.4 Hazchem code

2P

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use suitable equipment (including PPE) to prevent contamination of skin, eyes and personal clothing. Remove ignition sources and provide sufficient ventilation. Emergency procedures, Evacuate the danger area or to consult an expert. Approach from upwind. Isolate the area. Wear self-contained breathing apparatus in confined spaces, in cases where the oxygen level is depleted, or in case of significant emissions. Prevent further leakage or spillage if safe to do so. Keep away from incompatible products.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up

Slippery when spilt. Avoid accidents, clean up immediately. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour, mist and aerosol. Observe good personal hygiene, including washing hands before eating.

For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

Corrosive to 314 stainless steel, non-corrosive to 316 stainless steel, moderately corrosive to aluminium, copper and bronze.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

SWA Airborne Exposure Limits: Acetic acid: TWA 10 ppm (25 mg/m³); STEL 15 ppm (37 mg/m³)

8.2 Biological Limits

None allocated for this product.

8.3 Exposure controls

Appropriate engineering controls

Facilities storing or utilising this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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.

Eye/face protection

Splash-proof goggles or safety glasses with side shields. See Australian Standards (AS/NZS 1336 & 1337).

Skin protection

Wear impervious gloves and protective clothing (splash apron or equivalent chemical impervious outer garment and rubber boots) appropriate for the risk of exposure. See Australian Standards (AS 2161 & 2919 and AS/NZS 2210).

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. Wash and dry hands.

Respiratory protection

Where risk assessment shows inhalation risk exists, wear an approved P1 or P2 particulate filter respirator. See Australian Standards (AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Viscous liquid Colour : Clear, colourless
Odour:	Strong Vinegar
Odour Threshold:	24 ppm
pH:	2.9 (1% solution)
Freezing Point (°C):	17
Boiling Point/Range (°C):	116 (initial)
Decomposition Temperature:	No data available
Evaporation Rate:	0.97
Flash Point:	50
Flammability Limits:	5.5 - 16
Specific Gravity:	1.07
Vapour Density (air=1):	2.1
Vapour Pressure:	11 @ 20 °C (1.5 kPa)
% Volatiles:	90
Solubility in water:	Miscible in water

10. STABILITY AND REACTIVITY

10.1 Reactivity

Corrosive liquid. Reacts with alkalis.

10.2 Chemical stability

Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability. Releases heat and toxic, irritating vapours when mixed with water. Acetic acid contracts slightly upon freezing which may cause the container to burst.

10.3 Possibility of hazardous reactions

Will not react or polymerise, releasing excess pressure or heat, or create other hazardous conditions.

10.4 Conditions to avoid

Avoid excessive heat, direct sunlight, moisture, freezing, static charges, flames, sparks and high temperatures.

10.5 Incompatible materials

Acetic Acid is incompatible with chromic acid, nitric acid, ethylene glycol, perchloric acid, phosphorous trichloride, oxidizers, sodium peroxide, strong caustics, most metals (except aluminium), carbonates, hydroxides, oxides, and phosphates.. Slowly liberates explosive hydrogen gas when reacting with stainless steel.

10.6 Hazardous decomposition products

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Hazardous decomposition products include carbon monoxide, carbon dioxide and smoke.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50/LC50: CAS# 64-19-7: Inhalation, mouse: LC50 = 5620 ppm/1H. Oral, rat: LD50 = 3310 mg/kg. Skin, rabbit: LD50 = 1060 mg/kg. Standard Draize test: Skin, human – 50 mg/24H, mild reaction. Effects of Newborn: behavioural, Oral-rat TDLo = 700 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

Not sensitising.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Fertility: male index, itt-rat TDLo = 400 mg/kg.

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

No data available

Health Effects

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 cause severe injury leading to death. Symptoms include sore throat, vomiting, and diarrhoea. Ingestion of as little as 1.0 ml has resulted in perforation of the oesophagus.

Eye Contact: Eye contact with concentrated solutions may cause severe eye damage followed by loss of sight. Exposure to vapour may cause intense watering and irritation to eyes.

Skin Contact: Contact with concentrated solution may cause serious damage to the skin. Effects may include redness, pain, skin burns. High vapour concentrations may cause skin sensitization.

Inhalation: Inhalation of concentrated vapours may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur. Neither odour nor degree of irritation are adequate to indicate vapour concentration

11.2 Information on possible routes of exposure

The substance can be absorbed into the body by ingestion, inhalation of its vapour, mist or aerosol, eye contact and skin contact.

11.3 Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l. For glacial acetic acid: EC50 (wheat fumigation) = 23.3 mg/m³/2-hr, effect: leaf injury. LC50 (shrimp) = 100 - 300 mg/l/48-hr. LC50 (fathead minnow) = 88 mg/l/96-hr. This material may be toxic to aquatic life

12.2 Persistence and degradability

When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into air, this material is expected to have a half-life between 10 and 30 days. When released into water, this material is expected to readily biodegrade. When released into the water, this material is expected to have a half-life between 1 and 10 days.

12.3 Bioaccumulative potential

Standard dilution BOD5/TOD = 58% When released into the soil, this material is expected to readily biodegrade. This material is not expected to significantly bioaccumulate. This material has an estimated bioconcentration factor (BCF) of less than 100.

12.4 Mobility in soil

No data available.

12.5 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations

14. TRANSPORT INFORMATION

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

Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number	2789
14.2 Proper shipping name	ACETIC ACID SOLUTION
14.3 Transport hazard class	8 (3)
14.4 Packing group	II
14.5 Environmental hazards	No
14.6 Special precautions for users	None allocated
14.7 Hazchem code	2P
14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)	19
14.9 EMS	FE, SC

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

S6 scheduled poison.

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

AICS On the inventory, or in compliance with the inventory.

SECTION 16 OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
RTECS	Registry of Toxic Effects of Chemical Substances.
SWA	Safe Work Australia
Eye Irrit	Eye Irritation
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA Work Health and Safety Regulations 2011

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

Reason(s) for Issue:

Revised primary SDS

Alignment to GHS requirements

Disclaimer

AGent Sales & Services Pty Ltd provides the information contained herein in good faith but makes no representation as to its' comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate precautionary handling of the material. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose. AGent Sales & Services Pty Ltd makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, AGent Sales & Services Pty Ltd will not be responsible for damages resulting from use of or reliance upon this information.