

Infosafe No™ 1CH5S Issue Date : November 2020 RE-ISSUED by CHEMSUPP

Product Name **PROPIONIC ACID**

Classified as hazardous

## 1. Identification

**GHS Product Identifier** PROPIONIC ACID

**Company Name** CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

**Address** 38 - 50 Bedford Street GILLMAN  
SA 5013 Australia

**Telephone/Fax Number** Tel: (08) 8440-2000

**Emergency phone number** CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

**E-mail Address** www.chemsupply.com.au

**Recommended use of the chemical and restrictions on use** Propionates, antimicrobial agents in baking and dairy products, herbicides, preservative for grains and wood chips, emulsifying agents, solutions for electroplating nickel, pharmaceuticals, artificial fruit flavours, perfume bases, cellulose propionate thermoplastics and laboratory reagent.

**Other Names**

<u>Name</u>	<u>Product Code</u>
PROPIONIC ACID LR	PL051
Ethylformic acid, Methylacetic acid, Propanoic acid, Carboxyethane	

### Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

## 2. Hazard Identification

**GHS classification of the substance/mixture** Flammable Liquids: Category 3  
Skin Corrosion/Irritation: Category 1A  
Acute Toxicity - Dermal: Category 3  
Acute Toxicity - Oral: Category 4  
STOT Single Exposure: Category 3 (respiratory tract irritation)

**Signal Word (s)** DANGER

**Hazard Statement (s)** H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H311 Toxic in contact with skin.  
H302 Harmful if swallowed.  
H335 May cause respiratory irritation.

**Pictogram (s)** Flame, Corrosion, Skull and crossbones



**Precautionary statement – 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.

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P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P264 Wash thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement – Response**

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P363 Wash contaminated clothing before reuse.  
 P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P310 Immediately call a POISON CENTER or doctor/physician.

**Eyes**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P338 Remove contact lenses, if present and easy to do. Continue rinsing.

**Fire**

P370+P378 In case of fire: Use CO2, dry chemical or foam for extinction.

**Precautionary statement – Storage**

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

**Precautionary statement – Disposal**

P501 Dispose of contents/container to an approved disposal plant.

### 3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Propionic acid	79-09-4	100 %

### 4. First-aid measures

<b>Inhalation</b>	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
<b>Ingestion</b>	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.
<b>Skin</b>	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.
<b>Eye contact</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
<b>First Aid Facilities</b>	Maintain eyewash fountain and safety shower in work area.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
<b>Other Information</b>	If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone 13 1126 from anywhere in Australia.

### 5. Fire-fighting measures

<b>Hazards from Combustion Products</b>	May liberate toxic fumes in fire including oxides of carbon.
<b>Specific Methods</b>	Small fire: Use dry chemical, CO2 or water spray. Large fire: Use foam, fog or water spray. Do not use water jets. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.
<b>Hazchem Code</b>	•3W

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**Precautions in connection with Fire** Wear SCBA and chemical-splash suit. Fully encapsulating, gas-tight suit should be worn for maximum protection. Structural fire fighter's uniform is NOT effective for these materials.

## 6. Accidental release measures

**Spills & Disposal** ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25m - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

**Personal Precautions** Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Remove ignition sources

**Personal Protection** Wear protective clothing specified for normal operations (see Section 8)

## 7. Handling and storage

**Precautions for Safe Handling** Do not breathe vapour. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Take precautionary measures against static discharges. All electrical equipment must be flameproofed. Wash hands and face thoroughly after working with material. Use local exhaust extraction over processing area.

**Conditions for safe storage, including any incompatibilities** Store away from sources of heat or ignition. Store away from oxidizing agents. Keep containers closed at all times. Keep container tightly closed in a dry, well-ventilated place away from direct sunlight. Store at room temperature (15 - 25 °C). Store in a flammable goods storage area.

**Corrosiveness** Corrosive to metals such as iron, steel, brass, aluminium, lead and most other metals.

**Storage Regulations** Refer Australian Standard AS 1940-2017 'The storage and handling of flammable and combustible liquids'.

## 8. Exposure controls/personal protection

Occupational exposure limit values	Name	STEL		TWA		Footnote
		mg/m3	ppm	mg/m3	ppm	
	Propionic acid			30	10	
<b>Other Exposure Information</b>	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. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.					
<b>Appropriate engineering controls</b>	Provide sufficient ventilation to keep airborne levels below lower explosion limit. Refer to AS 1940-The storage and handling of flammable and combustible liquids and AS 2430 Explosive gas atmospheres for further information concerning ventilation requirements. Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.					
<b>Respiratory Protection</b>	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.					

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<b>Eye Protection</b>	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
<b>Hand Protection</b>	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
<b>Personal Protective Equipment</b>	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
<b>Footwear</b>	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
<b>Body Protection</b>	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals. Recommendation: Good: Teflon; Fair/Poor: Polyethylene.

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	Clear, colourless, oily liquid.
<b>Odour</b>	Slightly unpleasent irritating odour.
<b>Melting Point</b>	-20 °C
<b>Freezing Point</b>	-20.8 °C
<b>Boiling Point</b>	141 °C
<b>Solubility in Water</b>	Miscible. Can be salted out by the addition of CaCl <sub>2</sub> or other salts.
<b>Solubility in Organic Solvents</b>	Soluble in alcohol, chloroform and ether.
<b>Specific Gravity</b>	0.99 (@ 20 °C)
<b>pH</b>	2.5 (100 g/l, H <sub>2</sub> O, 20 °C)
<b>Vapour Pressure</b>	5 hPa @ 20 °C
<b>Vapour Density (Air=1)</b>	2.56
<b>Viscosity</b>	1.02 mPas @ 25 °C
<b>Partition Coefficient: n-octanol/water</b>	log P(o/w): 0.33 (experimentally)
<b>Flash Point</b>	54.4 °C (closed cup); 50 °C (open cup).
<b>Auto-Ignition Temperature</b>	485 °C
<b>Flammable Limits - Lower</b>	2.1%
<b>Flammable Limits - Upper</b>	12%
<b>Molecular Weight</b>	74.08
<b>Other Information</b>	Refractive index: 1.3862 @ 20 °C

## 10. Stability and reactivity

**Chemical Stability** Stable under normal use conditons.

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<b>Incompatible Materials</b>	Oxidising materials, metals and strong bases.
<b>Hazardous Decomposition Products</b>	May liberate toxic fumes in fire including oxides of carbon.
<b>Possibility of hazardous reactions</b>	Vigorous reaction with bases yielding heat and pressure. In contact with reactive metals, may produce flammable hydrogen gas. May react violently or explosively with oxidising agents.
<b>Hazardous Polymerization</b>	Will not occur.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 Oral - Rat - male and female - 3,455.1 mg/kg (OECD Test Guideline 401)
<b>Acute Toxicity - Dermal</b>	LD50 Dermal - Rat - female - 3,235 mg/kg (OECD Test Guideline 402)
<b>Acute Toxicity - Inhalation</b>	LC50 Inhalation - Rat - male and female - 4 h - > 20 mg/l (OECD Test Guideline 403)
<b>Ingestion</b>	Burns the mucous membranes in the mouth, pharynx, oesophagus, and gastrointestinal tract. Risk of perforation in the oesophagus and stomach. Symptoms include nausea, vomiting, hematemesis, diarrhoea, hypotension, abdominal pain, dizziness, somnolence, liver and kidney damage, convulsions, coma and death. Aspiration into lungs may cause chemical pneumonitis or pulmonary edema, which can be fatal.
<b>Inhalation</b>	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. Inhalation burns the respiratory tract, causing inflammation and edema of the larynx and bronchi, chemical pneumonitis, pulmonary edema, and may be fatal. Symptoms of exposure may include burning sensation, coughing, laryngitis, dyspnoea (shortness of breath), headache, nausea, and vomiting. May cause lung injury.
<b>Skin</b>	Toxic if absorbed through the skin. Causes severe burns. Contact may cause severe irritation, redness, and pain. Prolonged exposures can cause burns, blistering, and tissue destruction. Readily absorbed and harmful if absorbed through skin.
<b>Eye</b>	Contact with vapour and dilute solutions may cause redness, pain, blurred vision, and eye damage. Contact with concentrated solutions can cause corneal burns; damage may be permanent and loss of vision. Risk of blindness.
<b>Respiratory sensitisation</b>	Not classified based on available information.
<b>Skin Sensitisation</b>	Not classified based on available information.
<b>Germ cell mutagenicity</b>	Not classified based on available information.
<b>Carcinogenicity</b>	Not classified based on available information.
<b>Reproductive Toxicity</b>	Not classified based on available information.
<b>STOT-single exposure</b>	Category 3
<b>STOT-repeated exposure</b>	Not classified based on available information.
<b>Chronic Effects</b>	Repeated or prolonged skin contact may cause dermatitis.
<b>Serious eye damage/irritation</b>	H314 Causes serious skin burns and eye damage.
<b>Mutagenicity</b>	H314 Causes serious skin burns and eye damage.
<b>Respiratory Irritation</b>	H335 May causes respiratory irritation.
<b>Skin corrosion/irritation</b>	H314 Causes serious skin burns and eye damage.

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## 12. Ecological information

**Persistence and degradability** Readily biodegradable.

**Environmental Protection** Do not allow product to enter drains, waterways or sewers.

## 13. Disposal considerations

**Disposal Considerations** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

## 14. Transport information

**Transport Information** Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following:  
Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.

**U.N. Number** 3463

**UN proper shipping name** PROPIONIC ACID

**Transport hazard class(es)** 8

**Sub.Risk** 3

**Hazchem Code** •3W

**Packing Group** II

**IERG Number** 36

## 15. Regulatory information

**Regulatory Information** All of the significant ingredients in this formulation are compliant with Australian Industrial Chemicals Introduction Scheme (AICIS) regulations. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

**Poisons Schedule** S6 Other: S4

**Other Information** S6 for >80%, S5 for >30%.

## 16. Other Information

**Literature References** 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.  
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'  
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'.  
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.  
Safe Work Australia, 'Hazardous Chemical Information System'.  
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.  
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

**Contact Person/Point** Paul McCarthy Ph. (08) 8440 2000      **DISCLAIMER STATEMENT:**  
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**Empirical Formula  
& Structural  
Formula**

reliance on information provided in this data sheet or by our technical representatives.

C2 H5 COOH

...End Of MSDS...

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