

## Section 1 - Identification

### Product Identifier

**Product Name** (R)-2-Isopropylsuccinic acid-1-methyl ester

**Synonyms** (R)-3-Methoxycarbonyl-4-methylpentanoic acid

**Molecular Formula** C8 H14 O4

**Molecular Weight** 174.19

**Recommended Use** Laboratory chemicals.

**Uses advised against** No Information available

**Product Code** 363060000; 363065000

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 244 Bush Road, Albany,  
 Auckland, New Zealand

**Emergency Tel.** CHEMTREC®  
 09 980 6780 or +64 9 980 6780

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## Section 2 - Hazard(s) Identification

### Classification under Work Safe New Zealand

Not classified as hazardous according to criteria of EPA New Zealand

### GHS Classification

#### Physical hazards

Based on available data, the classification criteria are not met

#### Health hazards

Based on available data, the classification criteria are not met

#### Environmental hazards

Based on available data, the classification criteria are not met

**Label Elements** None required

Other hazards which do not result in classification

## Section 3 - Composition and Information on Ingredients

Component	CAS No	Weight %
(R)-2-Isopropylsuccinic acid-1-methyl ester	220498-08-8	100

## Section 4 - First Aid Measures

### Description of first aid measures

New Zealand Emergency Tel.	CHEMTREC® 09 980 6780 or +64 9 980 6780
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Self-Protection of the First Aider	No special precautions required.
First Aid Facilities	Eyewash, safety shower and washroom.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically.

## Section 5 - Fire Fighting Measures

### Suitable Extinguishing Media

Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

### Extinguishing media which must not be used for safety reasons

No information available.

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

### Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6 - Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency Procedures

#### Emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

#### Environmental Precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

#### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal.

#### Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations

#### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## Section 7 - Handling and Storage

### Precautions for Safe Handling

#### Advice on safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

### Conditions for Safe Storage, Including any Incompatibilities

#### Storage Conditions

Keep in a dry place. Keep container tightly closed. Keep refrigerated.

#### Incompatible Materials

Strong oxidizing agents.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

## Section 8 - Exposure Controls and Personal Protection

### Control parameters

#### Exposure limits

The product does not contain any hazardous materials with occupational exposure limits established.

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### Appropriate engineering controls

#### Engineering Measures

None under normal use conditions.

### Individual protection measures, such as personal protective equipment

#### Eye Protection

Wear safety glasses with side shields (or goggles) (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications)

#### Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Natural rubber, Butyl rubber, Nitrile rubber, Neoprene, PVC.	See manufacturers recommendations	-	AS/NZS 2161	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure

**Respiratory Protection** Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of respiratory protective devices

**Recommended Filter type:** Particle filter (or AUS/NZ equivalent)  
**Recommended half mask:-** Valve filtering: EN405 or Half mask: EN140 plus filter, EN 141 (or AUS/NZ equivalent)

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Physical State</b>	Viscous liquid Liquid	
<b>Appearance</b>	Clear	
<b>Odor</b>	No information available	
<b>Odor Threshold</b>	No data available	
<b>pH</b>	No information available	
<b>Melting Point/Range</b>	No data available	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	No information available	
<b>Flammability (liquid)</b>	No data available	
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	No data available	
<b>Flash Point</b>	No information available	<b>Method -</b> No information available
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	No data available	
<b>Water Solubility</b>	No information available	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Vapor Pressure</b>	No data available	
<b>Density / Specific Gravity</b>	No data available	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Vapor Density</b>	No data available	(Air = 1.0)
<b>Particle characteristics</b>	Not applicable (liquid)	

### Other information

<b>Molecular Formula</b>	C8 H14 O4
<b>Molecular Weight</b>	174.19

## Section 10 - Stability and Reactivity

Reactivity	None known, based on information available
Stability	Stable under normal conditions.
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Hazardous Polymerization	No information available.
Hazardous Reactions	None under normal processing.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents.

**Hazardous Decomposition Products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## Section 11 - Toxicological Information

### Acute Effects

#### Information on likely routes of exposure

<b>Product Information</b>	No acute toxicity information is available for this product
<b>Inhalation</b>	May cause irritation of respiratory tract. May cause allergic respiratory reaction.
<b>Eyes</b>	Not an expected route of exposure.
<b>Skin</b>	No known effect based on information supplied.
<b>Ingestion</b>	No known effect based on information supplied.

#### Numerical measures of toxicity

<b>(a) acute toxicity;</b>	
<b>Oral</b>	No data available
<b>Dermal</b>	No data available
<b>Inhalation</b>	No data available

#### Toxicology data for the components

<b>(b) skin corrosion/irritation;</b>	No data available
<b>(c) serious eye damage/irritation;</b>	No data available
<b>(d) respiratory or skin sensitization;</b>	
<b>Respiratory</b>	No data available
<b>Skin</b>	No data available
<b>Sensitization</b>	No information available
<b>(e) germ cell mutagenicity;</b>	No data available
<b>(f) carcinogenicity;</b>	No data available

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs No information available.

(j) aspiration hazard; No data available

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects, both acute and delayed  
No information available.

## Section 12 - Ecological Information

### Ecotoxicity

Aquatic ecotoxicity Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Terrestrial ecotoxicity There is no data for this product

Persistence and Degradability No information available

Bioaccumulative Potential No information available

Mobility No information available.

### Other adverse effects

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors  
Persistent Organic Pollutant This product does not contain any known or suspected substance  
Ozone Depletion Potential This product does not contain any known or suspected substance

## Section 13 - Disposal Considerations

### Waste treatment methods

Waste from Residues/Unused Products Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

Other Information

Disposal agencies or waste contractors must comply with the New Zealand Hazardous Substances (Disposal) Regulations .

## Section 14 - Transport Information

**NZS 5433:2020**

Not regulated

**IATA**

Not regulated

**IMDG/IMO**

Not regulated

**Environmental hazards**

No hazards identified

**Transport in bulk according to  
Annex II of MARPOL 73/78 and the  
IBC Code**

Not applicable, packaged goods

**Special Precautions**

No special precautions required. Please refer to the applicable dangerous goods regulations for additional information.

**Additional information**

None known

## Section 15 - Regulatory Information

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

**National Regulations**

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

**Certified handlers, tracking and controlled substance license requirements**

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information. Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.

**Prohibition or notification/licensing requirements**

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

**International Regulations**

**Ozone Depletion Potential**

This product does not contain any known or suspected substance

**Persistent Organic Pollutant**

This product does not contain any known or suspected substance

**Rotterdam Convention (PIC)**

Not applicable

**Authorisation/Restrictions  
according to EU REACH**

Not applicable

### International Inventories

New Zealand (NZIoC), Australia (AICS), Europe (EINECS/ELINCS/NLP), Korea (KECL), China (IECSC), Taiwan (TCSI), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	NZIoC	AICS	EINECS	ELINCS	NLP	KECL	IECSC	TCSI
(R)-2-Isopropylsuccinic acid-1-methyl ester	220498-08-8	-	-	-	-	-	-	-	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	PICCS	ISHL	ENCS
(R)-2-Isopropylsuccinic acid-1-methyl ester	220498-08-8	-	-	-	-	-	-	-

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

## Section 16 - Other Information

This safety data sheet complies with the requirements of the EPA Hazardous Substances (Hazard Classification) Notice 2020 and WorkSafe New Zealand Regulations

### Legend

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

NZS 5433:2020 - Transport of Dangerous Goods on Land

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

MARPOL - International Convention for the Prevention of Pollution from Ships

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

WEL - Workplace Exposure Limit

DNEL - Derived No Effect Level

POW - Partition coefficient Octanol:Water

vPvB - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

AICS - Australian Inventory of Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

ACGIH - American Conference of Governmental Industrial Hygienists

PNEC - Predicted No Effect Concentration

OECD - Organisation for Economic Co-operation and Development

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

ADG - Australian Code for the Transport of Dangerous Goods by Road and Rail

LC50 - Lethal Concentration 50%

ATE - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment

NOEC - No Observed Effect Concentration

BCF - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

### Key literature references and sources for data

HSNO classifications provided in the New Zealand Chemical Classification Information Database (CCID).

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

EPA Guide to classifying hazardous substances in New Zealand

EPA - Assigning a product to an existing HSNO approval guide

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

**Revision Date** 10-Mar-2023

**Revision Summary** Not applicable



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**End of Safety Data Sheet**