

Kit identification

Product name : L-Malic Acid Assay Kit (Liquid Ready Reagents)
 Product code : K-LMLQR
 Part Number(s) : 700007622

Details of the supplier of the Kit safety information sheet

Megazyme
 Bray Business Park
 Bray County Wicklow A98 YV29
 Ireland
 T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

General information

General description : This is a test kit that is comprised of several individual components, listed below, each of which may have its own Safety Data Sheet (SDS). Articles, and otherwise immobilized and inaccessible chemicals, do not have a Safety Data Sheet in this packet.

Kit contents

Name	GHS classification
L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)	Acute Tox. 5 (Dermal), H313
L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)	Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)	Not classified

Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
UN number		
Not applicable	Not applicable	Not applicable
UN Proper Shipping Name		
Not applicable	Not applicable	Not applicable
Transport hazard class(es)		
Not applicable	Not applicable	Not applicable

L-Malic Acid Assay Kit (Liquid Ready Reagents)

Kit Safety Information Sheet (SIS)

ADG	IMDG	IATA
Packing group		
Not applicable	Not applicable	Not applicable
Environmental hazards		
Not applicable	Not applicable	Not applicable

Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

Additional information

Other information : No supplementary information available

Transport by road and rail

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Hazchem or Emergency Action Code

Hazchem Code : Not applicable

Safety Data Sheet

according to the WHS Regulations

Issue date: 12/09/2025 Revision date: 12/09/2025 Supersedes: 12/09/2025 Version: 1.1

Safety Data Sheet

according to the WHS Regulations
Issue date: 12/09/2025 Revision date: 12/09/2025 Supersedes: 12/09/2025 Version: 1.1

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)
Product code : K-LMLQR (Bottle 1)

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Details of manufacturer or importer

Megazyme
Bray Business Park
Bray County Wicklow A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.5. Emergency phone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (dermal), Category 5 H313

2.2. GHS Label elements, including precautionary statements

Signal word (GHS AU) : Warning
Contains : L-glutamic acid ($\geq 1 - < 5$ %)
Hazard statements (GHS AU) : H313 - May be harmful in contact with skin
Precautionary statements (GHS AU) : P312 - Call a POISON CENTER or doctor if you feel unwell.
Unknown acute toxicity (GHS AU) : 2.73% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
96.61% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
99.33% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation
(Dust/Mist))

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Safety Data Sheet

according to the WHS Regulations

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: May be harmful in contact with skin.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material.

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Safety Data Sheet

according to the WHS Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight.
- Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

- Personal protective equipment : Wear recommended personal protective equipment.
- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

- Physical state : Liquid
- Appearance : No data available
- Colour : Mixture contains one or more component(s) which have the following colour(s):
White Colourless to white
- Odour : Odour threshold is subjective and inadequate to warn for overexposure.
Mixture contains one or more component(s) which have the following odour:
Odourless
- Odour threshold : No data available
- pH : No data available
- pH solution : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point / Freezing point : Melting point: Not applicable
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Flammability : No data available
- Vapour pressure : No data available

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Safety Data Sheet

according to the WHS Regulations

Relative density	: No data available
Density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Explosive properties	: No data available
Explosive limits	: No data available
Minimum ignition energy	: No data available
Fat solubility	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: May be harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

ATE AU (dermal)	3110.785 mg/kg bodyweight
Unknown acute toxicity (GHS AU)	: 2.73% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 96.61% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 99.33% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Persistence and degradability	Not rapidly degradable
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L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Safety Data Sheet

according to the WHS Regulations

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Fluorinated greenhouse gases	False
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SECTION 13: Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
14.1. UN number		
Not applicable	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not applicable	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
14.4. Packing group		
Not applicable	Not regulated	Not regulated
14.5. Environmental hazards		
Not applicable	Not regulated	Not regulated

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 1)

Safety Data Sheet

according to the WHS Regulations

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS : All the chemicals contained in this product are listed introductions Inventory) status

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

No additional information available

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date : 12/09/2025

Classification

Acute Tox. 5 (Dermal)

H313

Full text of H-statements

Acute Tox. 5 (Dermal)

Acute toxicity (dermal), Category 5

H313

May be harmful in contact with skin

Safety Data Sheet (SDS), Australia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to the WHS Regulations
Issue date: 12/09/2025 Revision date: 12/09/2025 Supersedes: 12/09/2025 Version: 1.1

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)
Product code : K-LMLQR (Bottle 2)

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Details of manufacturer or importer

Megazyme
Bray Business Park
Bray County Wicklow A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.5. Emergency phone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (dermal), Category 5	H313
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :



Exclamation
mark

Signal word (GHS AU) : Warning
Contains : β -Nicotineamide adenine dinucleotide (NAD) ($\geq 1 - < 5\%$); Ammonium sulfate ($\geq 1 - < 5\%$)
Hazard statements (GHS AU) : H313 - May be harmful in contact with skin
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS AU) : P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

Unknown acute toxicity (GHS AU) : P332+P313 - If skin irritation occurs: Get medical advice/attention.
: P337+P313 - If eye irritation persists: Get medical advice/attention.
: 96.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
98.46% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
β -Nicotinamide adenine dinucleotide (NAD)	53-84-9	$\geq 1 - < 5$	Acute Tox. 5 (Oral), H303 Skin Corr. 1, H314 Eye Dam. 1, H318
Other substances (not contributing to the classification of this product)	-	95 - 99	-

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider : First aid workers will be equipped with suitable personal protective equipment.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation : None under normal conditions.
Symptoms/effects after skin contact : May be harmful in contact with skin. Irritation.
Symptoms/effects after eye contact : Eye irritation.
Symptoms/effects after ingestion : None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight.
- Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment	: Wear recommended personal protective equipment.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



Environmental exposure controls	: Avoid release to the environment.
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SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Mixture contains one or more component(s) which have the following colour(s): White to off-white Off-white to light yellow Light yellow to yellow-brown Light yellow-green Colourless-white Unpurified: grey-brown Colourless to white
Odour	: Odour threshold is subjective and inadequate to warn for overexposure. Mixture contains one or more component(s) which have the following odour: Odourless Characteristic odour Mild odour
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point / Freezing point	: Melting point: Not applicable
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Flammability	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Explosive properties	: No data available
Explosive limits	: No data available
Minimum ignition energy	: No data available
Fat solubility	: No data available

SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: May be harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

ATE AU (dermal)	3892.979 mg/kg bodyweight
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β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
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Unknown acute toxicity (GHS AU) : 96.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
98.46% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Reproductive toxicity	Not classified
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STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
Partition coefficient n-octanol/water (Log Pow)	-3.68 Source: Ecological Structure Activity Relationships
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

12.2. Persistence and degradability

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Persistence and degradability	Not rapidly degradable
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β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Partition coefficient n-octanol/water (Log Pow)	-3.68 Source: Ecological Structure Activity Relationships
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12.4. Mobility in soil

β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Mobility in soil	10 Source: Quantitative Structure Activity Relation
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L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Partition coefficient n-octanol/water (Log Pow)	-3.68 Source: Ecological Structure Activity Relationships
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12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Fluorinated greenhouse gases	False
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β -Nicotineamide adenine dinucleotide (NAD) (53-84-9)

Fluorinated greenhouse gases	False
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SECTION 13: Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
14.1. UN number		
Not applicable	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not applicable	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
14.4. Packing group		
Not applicable	Not regulated	Not regulated
14.5. Environmental hazards		
Not applicable	Not regulated	Not regulated

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 2)

Safety Data Sheet

according to the WHS Regulations

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status : Contains substance(s) listed on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

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

No additional information available

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date : 12/09/2025

Classification

Acute Tox. 5 (Dermal)	H313
Skin Irrit. 2	H315
Eye Irrit. 2A	H319

Full text of H-statements

Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

Safety Data Sheet (SDS), Australia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Safety Data Sheet

according to the WHS Regulations
Issue date: 12/09/2025 Revision date: 12/09/2025 Supersedes: 12/09/2025 Version: 1.1

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)
Product code : K-LMLQR (Bottle 3)

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Details of manufacturer or importer

Megazyme
Bray Business Park
Bray County Wicklow A98 YV29
Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

1.5. Emergency phone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Not classified

2.2. GHS Label elements, including precautionary statements

Unknown acute toxicity (GHS AU) : 99.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
99.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, seek medical advice.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.
Self protection of the first-aiders : First aid workers will be equipped with suitable personal protective equipment.

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Safety Data Sheet

according to the WHS Regulations

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Medical attention and special treatment

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Safety Data Sheet

according to the WHS Regulations

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.
Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Monitoring methods

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Wear recommended personal protective equipment.
Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Appearance : No data available
Colour : Mixture contains one or more component(s) which have the following colour(s):
Colourless to white
Odour : Odour threshold is subjective and inadequate to warn for overexposure.
Mixture contains one or more component(s) which have the following odour:
Odourless
Odour threshold : No data available
pH : No data available
pH solution : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point / Freezing point : Melting point: Not applicable
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Flammability : No data available
Vapour pressure : No data available
Relative density : No data available
Density : No data available
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Explosive properties : No data available
Explosive limits : No data available

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Safety Data Sheet

according to the WHS Regulations

Minimum ignition energy : No data available
Fat solubility : No data available

SECTION 10: Stability and reactivity

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.
Conditions to avoid : None under recommended storage and handling conditions (see section 7).
Incompatible materials : No additional information available
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Unknown acute toxicity (GHS AU) : 99.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
99.85% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Safety Data Sheet

according to the WHS Regulations

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Fluorinated greenhouse gases

False

SECTION 13: Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
14.1. UN number		
Not applicable	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not applicable	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
14.4. Packing group		
Not applicable	Not regulated	Not regulated
14.5. Environmental hazards		
Not applicable	Not regulated	Not regulated

14.6. Special precautions for user

Specific storage requirement	: No data available
Shock sensitivity	: No data available

14.7. Additional information

Other information	: No supplementary information available
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Transport by road and rail

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

14.8. Hazchem or Emergency Action Code

Hazchem Code	: Not applicable
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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status : All the chemicals contained in this product are listed introductions

L-Malic Acid Assay Kit (Liquid Ready Reagents) (Bottle 3)

Safety Data Sheet

according to the WHS Regulations

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

No additional information available

Australian Pesticides and Veterinary Medicines Authority (APVMA)

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

Revision date : 12/09/2025

Classification

Not classified	
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Safety Data Sheet (SDS), Australia

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