

#### L-Malic Acid Assay Kit (Analyser Format)

Kit Safety Information Sheet

Date of issue: 05/06/2013

Revision date: 21/02/2018

SECTION 1: Kit identification	
Product name Product code	: L-Malic Acid Assay Kit (Analyser Format) : K-LMALAF
1.2. Details of the supplier of the KIT sat	fety information sheet
Megazyme Bray Business Park A98 YV29 Bray - Ireland T +353 12861220 - F +353 12861264 <u>cs@megazyme.com</u> - <u>www.megazyme.com</u>	

#### **SECTION 2: General information**

This product is a Kit which consists of several independently packaged components

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

#### SECTION 3: Kit contents

Name	General description	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
L-Malic Acid Assay Kit (Analyser Format) (Bottle 2)	Reagent	2	pcs (pieces)	Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412

No substance or mixture included in the following Kit components is hazardous according to Regulation (EC) No. 1272/2008 [CLP] and therefore the requirements of Regulation (EU) 2015/830 do not apply

Name	General description	Quantity	Unit
L-Malic Acid Assay Kit (Analyser Format) (Bottle 1)	Buffer	1	pcs (pieces)
L-Malic Acid Assay Kit (Analyser Format) (Bottle 3)	Reagent	1	pcs (pieces)
L-Malic Acid Assay Kit (Analyser Format) (Bottle 4)	Reagent	1	pcs (pieces)
L-Malic Acid Assay Kit (Analyser Format) (Bottle 5)	Reagent	1	pcs (pieces)

#### SECTION 4: General advice

No data available

SECTION 5: Safe handling advice	•
Environmental precautions	: Avoid release to the environment
Storage conditions	: Store in a well-ventilated place. Keep cool.
Precautions for safe handling	: Ensure good ventilation of the work station Wear personal protective equipment
SECTION 6: First aid measures	
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
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
Other medical advice or treatment	: Treat symptomatically

#### SECTION 7: Fire fighting measures

# L-Malic Acid Assay Kit (Analyser Format)

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Protection during firefighting		Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing
Hazardous decomposition products in case of fire	:	Toxic fumes may be released

#### **SECTION 8: Other information**

No data available



Megazyme	L-IVIAIIC ACIO ASSAY KIT (AF 5) Safety Data Sheet according to Regulation (EU) 2015/830 Date of issue: 05/06/2013 Revision date: 21/02/2018	Supersedes: 02/03/2017	Version: 1.3
<b>SECTION 1: Identification o</b>	f the substance/mixture and of the company.	/undertaking	
1.1. Product identifier			
Product form	: Mixture		
Product name	: L-Malic Acid Assay Kit (Analyser Format) (B	ottle 5)	
Product code	: K-LMALAF (Bottle 5)		
1.2. Relevant identified uses	of the substance or mixture and uses advised against		
1.2.1. Relevant identified uses			
Industrial/Professional use spec	: For professional use only		
Use of the substance/mixture	: Use as laboratory reagent		
1.2.2. Uses advised against			
No additional information available			
1.3. Details of the supplier of	the safety data sheet		
Bray Business Park A98 YV29 Bray - Ireland T +353 12861220 - F +353 12861264 cs@megazyme.com - www.megazym			
1.4. Emergency telephone nu			
Emergency number	: +353 12861220 [9 am to 5 pm GMT - Monda	ay to Friday]	
<b>SECTION 2: Hazards identif</b>	ication		
2.1. Classification of the subs			
Classification according to Regula Not classified	tion (EC) No. 1272/2008 [CLP]		
Adverse physicochemical, human To our knowledge, this product does practice.	health and environmental effects not present any particular risk, provided it is handled in acco	ordance with good occupation	al hygiene and safety
2.2. Label elements			
Labelling according to Regulation EUH-statements	(EC) No. 1272/2008 [CLP] : EUH032 - Contact with acids liberates very t	tovic das	
	for inner packaging where the contents do not exceed	-	
No labelling required			
2.3. Other hazards			
No additional information available			
<b>SECTION 3: Composition/in</b>	formation on ingredients		
3.1. Substances			
Not applicable			

3.2. **Mixtures** 

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures	
4.1. Description of first aid measures	
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.

Safety Data Sheet

according to Regulation (EU) 2015/830

4.2. No additi	I.2. Most important symptoms and effects, both acute and delayed				
4.3.	4.3. Indication of any immediate medical attention and special treatment needed				
Treat syr	nptomatically.				
SECTI	ON 5: Firefighting measures				
5.1.	Extinguishing media				
Suitable	extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.			
5.2.	Special hazards arising from the sub-	stance or mixture			
Hazardo fire	us decomposition products in case of	: Toxic fumes may be released.			
5.3.	Advice for firefighters				
Protectio	n during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			
SECTI	ON 6: Accidental release meas	ures			
6.1.	Personal precautions, protective equ	ipment and emergency procedures			
6.1.1. Emergen	For non-emergency personnel icy procedures	: Ventilate spillage area.			
6.1.2. Protectiv	For emergency responders e equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".			
6.2. Avoid rel	Environmental precautions ease to the environment.				
6.3.	Methods and material for containment				
	for cleaning up	: Take up liquid spill into absorbent material.			
Other inf		: Dispose of materials or solid residues at an authorized site.			
6.4.	Reference to other sections er information refer to section 13.				
	ON 7: Handling and storage				
7.1. Procoutic	Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.			
	measures	<ul> <li>Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>			
7.2.	Conditions for safe storage, including				
Storage	conditions	: Store in a well-ventilated place. Keep cool.			
7.3.	Specific end use(s)				
	onal information available				
SECTI	ON 8: Exposure controls/perso	nal protection			
8.1.	Control parameters				
NO Additi	onal information available				
8.2.	Exposure controls				
Appropr	iate engineering controls:				
Ensure g	ood ventilation of the work station.				

#### Hand protection:

Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

#### Eye protection:

Safety glasses

Safety Data Sheet

according to Regulation (EU) 2015/830

Туре	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

#### Skin and body protection:

Wear suitable protective clothing

Туре	Standard
Lab coat	

#### **Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Dust mask	Туре Р1	Protection for Liquid particles	EN 143, EN 149



#### Environmental exposure controls:

Avoid release to the environment.

<b>SECTION 9: Physical and chemica</b>	I properties
9.1. Information on basic physical and	d chemical properties
Physical state	: Liquid
Colour	: Colourless.
Odour	: None.
Odour threshold	: No data available
pН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	:
9.2. Other information	
No additional information available	
SECTION 10: Stability and reactivity	ty
10.1 Pepetivity	

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

Safety Data Sheet

according to Regulation (EU) 2015/830

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological informat	ion
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: 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. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified
12.2. Persistence and degradability	
No additional information available	

#### 12.3. Bioaccumulative potential

No additional information available 12.4. Mobility in soil

#### No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

#### No additional information available

#### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

#### **SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN			
ADR	IATA		
14.1. UN number			
Not applicable	Not applicable		
14.2. UN proper shipping name			
Not applicable	Not applicable		
14.3. Transport hazard class(es)			
Not applicable	Not applicable		

Safety Data Sheet

according to Regulation (EU) 2015/830

ADR	IATA	
14.4. Packing group		
Not applicable	Not applicable	
14.5. Environmental hazards		
Not applicable	Not applicable	
No supplementary information available		

#### 14.6. Special precautions for user

- Overland transport

Not applicable

#### - Air transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

#### Not applicable

#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

Full text of H- and EUH-statements:	
EUH032	Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

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.



### L-Malic Acid Assay Kit (Analyser Format) (Bottle 4)

Safety Data Sheet

Megazyme	according to Regulation (EU)			
	Date of issue: 05/06/2013	Revision date: 20/12/2017	Supersedes: 02/03/2017	Version: 1.3
SECTION 1: Identification o	f the substance/mixtu	re and of the company	/undertaking	
1.1. Product identifier				
Product form	: Mixture			
Product name	: L-Malic Acid A	Assay Kit (Analyser Format) (B	ottle 4)	
Product code	: K-LMALAF (B	ottle 4)		
1.2. Relevant identified uses	of the substance or mixture	and uses advised against		
1.2.1. Relevant identified uses				
Industrial/Professional use spec	: For profession	nal use only		
Use of the substance/mixture	: Use as labora	tory reagent		
1.2.2. Uses advised against				
No additional information available				
1.3. Details of the supplier of	the safety data sheet			

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

#### 1.4. **Emergency telephone number**

Emergency number

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

### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Not classified

#### Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] **EUH-statements**

: EUH208 - Contains Malate (L-) Dehydrogenase. May produce an allergic reaction.

- EUH210 Safety data sheet available on request.
- EUH032 Contact with acids liberates very toxic gas.

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

No labelling required

#### 2.3. **Other hazards**

No additional information available

#### SECTION 3: Composition/information on ingredients

3.1. **Substances** 

Not applicable

#### 3.2. **Mixtures**

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

SECTION 4: First aid measures		
4.1. Description of 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. If experiencing respiratory symptoms: Call a poison center or a doctor.	1
First-aid measures after skin contact	: Wash skin with plenty of water.	
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# L-Malic Acid Assay Kit (Analyser Format) (Bottle 4) Safety Data Sheet

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.
4.2. Most important symptoms and eff	
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
, , , , , , , , , , , , , , , , , , ,	
	cal attention and special treatment needed
Treat symptomatically.	
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the s	
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release me	asures
6.1. Personal precautions, protective e	equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area. Avoid breathing mist, spray, vapours.
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".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containr	nent and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	<ul> <li>Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing mist, spray, vapours.</li> </ul>
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, include	ding any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/per	sonal protection
8.1. Control parameters	
No additional information available	
8.2. Exposure controls	

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

#### Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Safety Data Sheet

according to Regulation (EU) 2015/830

#### Eye protection:

#### Safety glasses

Туре	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

#### Skin and body protection:

Wear suitable protective clothing

Туре	Standard
Lab coat	

#### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
Dust mask	Туре Р1	Protection for Liquid particles	EN 143, EN 149



#### Environmental exposure controls:

Avoid release to the environment.

<b>SECTION 9: Physical and chemica</b>	I properties
9.1. Information on basic physical and	d chemical properties
Physical state	: Liquid
Colour	: milky.
Odour	: None.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	:
9.2. Other information	
No additional information available	

#### SECTION 10: Stability and reactivity 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

Safety Data Sheet

according to Regulation (EU) 2015/830

10.3.	0.3. Possibility of hazardous reactions				
Contact	Contact with acids liberates very toxic gas.				
10.4.	Conditions to avoid				
None under recommended storage and handling conditions (see section 7).					
10.5.	Incompatible materials				
Acids.					
10.6.	Hazardous decomposition products				
Index normal conditions of storage and use hazardays decomposition products should not be produced					

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological informa					
11.1. Information on toxicological effects					
Acute toxicity (oral) Acute toxicity (dermal)	: Not classified				
Acute toxicity (inhalation)	Not classified Not classified				
Skin corrosion/irritation	: Not classified				
Serious eye damage/irritation	: Not classified				
Respiratory or skin sensitisation	: 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 informatio	n				
12.1. Toxicity					
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.				
Acute aquatic toxicity	: Not classified				
Chronic aquatic toxicity	: Not classified				
12.2. Persistence and degradability					
No additional information available					
12.3. Bioaccumulative potential					
No additional information available					
12.4. Mobility in soil					
No additional information available					
12.5. Results of PBT and vPvB assessm	ent				
No additional information available					
12.6. Other adverse effects					
No additional information available					
SECTION 13: Disposal consideration	ons				
13.1. Waste treatment methods					
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.				
SECTION 14: Transport information					
In accordance with ADR / RID / IMDG / IATA / ADN					
ADR	ΙΑΤΑ				
14.1. UN number					
Not applicable	Not applicable				

Not applicable

Not applicable

UN proper shipping name

14.2.

Safety Data Sheet

according to Regulation (EU) 2015/830

ADR	ΙΑΤΑ	
14.3. Transport hazard class(es)		
Not applicable	Not applicable	
14.4. Packing group		
Not applicable	Not applicable	
14.5. Environmental hazards		
Not applicable	Not applicable	
No supplementary information available		

#### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Air transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

#### SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

#### Full text of H- and EUH-statements:

EUH032	Contact with acids liberates very toxic gas.	
EUH208 Contains . May produce an allergic reaction.		
EUH210	Safety data sheet available on request.	

SDS EU (REACH Annex II)

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.



Megazyme	3) Safety Data Sheet according to Regulation (EU) 2015/830
	Date of issue: 05/06/2013 Revision date: 20/12/2017 Supersedes: 02/03/2017 Version: 1.3
SECTION 1: Identification	on of the substance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixture
Product name	: L-Malic Acid Assay Kit (Analyser Format) (Bottle 3)
Product code	: K-LMALAF (Bottle 3)
1.2. Relevant identified u	ses of the substance or mixture and uses advised against
1.2.1. Relevant identified u	ses
Industrial/Professional use spec	: For professional use only
Use of the substance/mixture	: Use as laboratory reagent
1.2.2. Uses advised agains	
No additional information availal	
	er of the safety data sheet
Megazyme Bray Business Park A98 YV29 Bray - Ireland T +353 12861220 - F +353 1286 cs@megazyme.com - www.meg	
1.4. Emergency telephon	e number
Emergency number	: +353 12861220 [9 am to 5 pm GMT - Monday to Friday]
SECTION 2: Hazards ide	entification
2.1. Classification of the	substance or mixture
Classification according to Re Not classified	egulation (EC) No. 1272/2008 [CLP]
	man health and environmental effects does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet
2.2. Label elements	
Labelling according to Regula	ition (EC) No. 1272/2008 [CLP]
EUH-statements	: EUH032 - Contact with acids liberates very toxic gas.
Labelling according to: exemp	otion for inner packaging where the contents do not exceed 10ml
No labelling required	
2.3. Other hazards	
No additional information availal	ble
SECTION 3: Compositio	n/information on ingredients
3.1. Substances	
Not applicable	
3.2. Mixtures	
	ny substances to be mentioned according to the criteria of section 3.2 of REACH annex II
SECTION 4: First aid me	asures
4.1. Description of first a	

4.1.	Description of first aid measures	
First-aid	d measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid	d measures after skin contact	: Wash skin with plenty of water.
First-aid	d measures after eye contact	: Rinse eyes with water as a precaution.
First-aid	d measures after ingestion	: Call a poison center or a doctor if you feel unwell.

Safety Data Sheet

according to Regulation (EU) 2015/830

4.2. No additi	2. Most important symptoms and effects, both acute and delayed				
4.3.	4.3. Indication of any immediate medical attention and special treatment needed				
	Treat symptomatically.				
SECTI	ON 5: Firefighting measures				
5.1.	Extinguishing media				
		: Water spray. Dry powder. Foam. Carbon dioxide.			
5.2.	Special hazards arising from the sub-	stance or mixture			
Hazardo fire	us decomposition products in case of	: Toxic fumes may be released.			
5.3.	Advice for firefighters				
Protectio	n during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.			
SECTI	ON 6: Accidental release meas	ures			
6.1.	Personal precautions, protective equ	pment and emergency procedures			
6.1.1. Emerger	For non-emergency personnel acy procedures	: Ventilate spillage area.			
6.1.2. Protectiv	For emergency responders e equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".			
6.2. Avoid rel	Environmental precautions ease to the environment.				
6.3.	Methods and material for containment	t and cleaning up			
	for cleaning up	: Take up liquid spill into absorbent material.			
-	ormation	: Dispose of materials or solid residues at an authorized site.			
6.4.	Reference to other sections				
	er information refer to section 13.				
SECTI	ON 7: Handling and storage				
7.1.	Precautions for safe handling	For some stand and the firm of the sound of the			
	ons for safe handling measures	<ul> <li>Ensure good ventilation of the work station. Wear personal protective equipment.</li> <li>Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>			
7.2.	Conditions for safe storage, including	any incompatibilities			
Storage	conditions	: Store in a well-ventilated place. Keep cool.			
7.3.	Specific end use(s)				
	ional information available				
SECTI	ON 8: Exposure controls/perso	nal protection			
8.1.	Control parameters				
No additi	ional information available				
8.2.	Exposure controls				
Appropr	Appropriate engineering controls:				
Ensure g	ood ventilation of the work station.				

#### Hand protection:

Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

#### Eye protection:

Safety glasses

Safety Data Sheet

according to Regulation (EU) 2015/830

Туре	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

#### Skin and body protection:

Wear suitable protective clothing

Туре	Standard
Lab coat	

#### **Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Dust mask	Туре Р1	Protection for Liquid particles	EN 143, EN 149



#### Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties			
9.1. Information on basic physical and chemical properties			
Physical state	: Liquid		
Colour	: No data available		
Odour	: None.		
Odour threshold	: No data available		
рН	: No data available		
Relative evaporation rate (butylacetate=1)	: No data available		
Melting point	: Not applicable		
Freezing point	: No data available		
Boiling point	: No data available		
Flash point	: No data available		
Auto-ignition temperature	: No data available		
Decomposition temperature	: No data available		
Flammability (solid, gas)	: Not applicable		
Vapour pressure	: No data available		
Relative vapour density at 20 °C	: No data available		
Relative density	: No data available		
Solubility	: Soluble in water.		
Log Pow	: No data available		
Viscosity, kinematic	: No data available		
Viscosity, dynamic	: No data available		
Explosive properties	: No data available		
Oxidising properties	: No data available		
Explosive limits	:		
9.2. Other information			
No additional information available			
SECTION 10: Stability and reactivity			

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

Safety Data Sheet

according to Regulation (EU) 2015/830

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 12: Ecological information				
harmful to aquatic organisms nor to cause long-term adverse				
12.2. Persistence and degradability No additional information available				

12.3.	Bioaccum	ulative	potential	

No additional information available 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

#### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

#### **SECTION 14: Transport information**

n accordance with ADR / RID / IMDG / IATA / ADN		
ADR	IATA	
14.1. UN number		
Not applicable	Not applicable	
14.2. UN proper shipping name		
Not applicable	Not applicable	
14.3. Transport hazard class(es)		
Not applicable	Not applicable	

Safety Data Sheet

according to Regulation (EU) 2015/830

ADR	ΙΑΤΑ
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Not applicable	Not applicable
No supplementary information available	

#### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Air transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

#### Not applicable

ADATION (E. D	the first state of the second state of the sec
SECTION 15' Redulatory	Information
SECTION 15: Regulatory	

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

Full text of H- and EUH-statements:	
EUH032	Contact with acids liberates very toxic gas.

SDS EU (REACH Annex II)

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.



	2) Sefety Deta Sheet			
Megazyme	Safety Data Sheet according to Regulation (EU) 2015/830			
	Date of issue: 05/06/2013         Revision date: 20/12/2017         Supersedes: 02/03/2017         Version: 1.3			
SECTION 1: Identification of	the substance/mixture and of the company/undertaking			
1.1. Product identifier				
Product form				
Product name	: L-Malic Acid Assay Kit (Analyser Format) (Bottle 2)			
Product code	: K-LMALAF (Bottle 2)			
1.2. Relevant identified uses of	f the substance or mixture and uses advised against			
1.2.1. Relevant identified uses				
Industrial/Professional use spec	: For professional use only			
Use of the substance/mixture	: Use as laboratory reagent			
1.2.2. Uses advised against				
No additional information available				
1.3. Details of the supplier of the supplication of the supplicati	he safety data sheet			
Megazyme Bray Business Park A98 YV29 Bray - Ireland T +353 12861220 - F +353 12861264 <u>cs@megazyme.com</u> - <u>www.megazym</u>	e.com			
1.4. Emergency telephone nun				
Emergency number	: +353 12861220 [9 am to 5 pm GMT - Monday to Friday]			
SECTION 2: Hazards identified	cation			
2.1. Classification of the subst	ance or mixture			
Classification according to Regulation Acute toxicity (oral), Category 4	H302			
Hazardous to the aquatic environment — H412 Chronic Hazard, Category 3 Full text of H statements : see section 16				
Adverse physicochemical, human h Harmful if swallowed. Harmful to aqua				
2.2. Label elements				
Labelling according to Regulation (	EC) No. 1272/2008 [CLP]			
Hazard pictograms (CLP)				
	GHS07			
Signal word (CLP)	: Warning			
Hazardous ingredients	: sodium azide			
Hazard statements (CLP)	: H302 - Harmful if swallowed. H412 - Harmful to aquatic life with long lasting effects.			
Precautionary statements (CLP)	<ul> <li>P264 - Wash hands thoroughly after handling.</li> <li>P270 - Do not eat, drink or smoke when using this product.</li> <li>P273 - Avoid release to the environment.</li> <li>P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.</li> <li>P330 - Rinse mouth.</li> <li>P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</li> </ul>			
EUH-statements	EUH032 - Contact with acids liberates very toxic gas.			
Labelling according to: exemption f	for inner packaging where the contents do not exceed 10ml			

Labelling according to: exemption for inner packaging where the contents do not exceed 10ml

Hazardous ingredients

: sodium azide

Safety Data Sheet

according to Regulation (EU) 2015/830

#### 2.3. Other hazards

No additional information available

#### SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium azide	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7	0.1 - 1	Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures		
4.1. Description of 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.	
First-aid measures after eye contact : Rinse eyes with water as a precaution.		
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effe	cts, both acute and delayed	
No additional information available		
4.3. Indication of any immediate medica	al attention and special treatment needed	
Treat symptomatically.		
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Water spray. Dry powder. Foam.	
5.2. Special hazards arising from the su	ibstance or mixture	
Hazardous decomposition products in case of fire	: Toxic fumes may be released.	
5.3. Advice for firefighters		
Protection during firefighting	<ul> <li>Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.</li> </ul>	
	apparate. Complete protocore cleaning.	
SECTION 6: Accidental release mea		
	sures	
6.1. Personal precautions, protective ec	sures	
6.1.Personal precautions, protective ec6.1.1.For non-emergency personnelEmergency procedures	ISURES quipment and emergency procedures	
6.1.Personal precautions, protective ec6.1.1.For non-emergency personnel	ISURES quipment and emergency procedures	
<ul> <li>6.1. Personal precautions, protective economic for a second precaution protective economic for a second precaution procedure procedures</li> <li>6.1.2. For emergency responders</li> </ul>	ISURES IS	
<ul> <li>6.1. Personal precautions, protective ec.</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> </ul>	ISURES IS	
<ul> <li>6.1. Personal precautions, protective ec.</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> </ul>	Sures	
<ul> <li>6.1. Personal precautions, protective ec.</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> </ul>	Sures	
<ul> <li>6.1. Personal precautions, protective ec.</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> <li>6.3. Methods and material for containment</li> </ul>	ISURES Puipment and emergency procedures  Ventilate spillage area.  Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  ent and cleaning up	
<ul> <li>6.1. Personal precautions, protective ed.</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> <li>6.3. Methods and material for containment</li> <li>Methods for cleaning up</li> </ul>	ISURES INCLOSE INCLOS	
<ul> <li>6.1. Personal precautions, protective ed</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> <li>6.3. Methods and material for containmed</li> <li>Methods for cleaning up</li> <li>Other information</li> </ul>	ISURES INCLOSE INCLOS	
<ul> <li>6.1. Personal precautions, protective editions</li> <li>6.1.1. For non-emergency personnel</li> <li>Emergency procedures</li> <li>6.1.2. For emergency responders</li> <li>Protective equipment</li> <li>6.2. Environmental precautions</li> <li>Avoid release to the environment.</li> <li>6.3. Methods and material for containment</li> <li>Methods for cleaning up</li> <li>Other information</li> <li>6.4. Reference to other sections</li> </ul>	ISURES INCLUES INCLUE	
<ul> <li>6.1. Personal precautions, protective editions.</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for containmer Methods for cleaning up Other information</li> <li>6.4. Reference to other sections For further information refer to section 13.</li> <li>SECTION 7: Handling and storage</li> </ul>	Isures I	
<ul> <li>6.1. Personal precautions, protective editions.</li> <li>6.1.1. For non-emergency personnel Emergency procedures</li> <li>6.1.2. For emergency responders Protective equipment</li> <li>6.2. Environmental precautions Avoid release to the environment.</li> <li>6.3. Methods and material for containmer Methods for cleaning up Other information</li> <li>6.4. Reference to other sections For further information refer to section 13.</li> <li>SECTION 7: Handling and storage</li> </ul>	Isures I	

Safety Data Sheet

according to Regulation (EU) 2015/830

Hygiene measures	: Do not eat, drink or smoke when

: 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

Storage conditions		
7.3.	Specific end use(s)	

No additional information available

#### SECTION 8: Exposure controls/personal protection

8.1.	Control	parameters

sodium azide (26628-22-8)		
EU	Local name	Sodium azide
EU	IOELV TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
EU	IOELV STEL (mg/m <sup>3</sup> )	0.3 mg/m <sup>3</sup>
EU	Notes	Skin
EU	Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

: Store in a well-ventilated place. Keep cool.

#### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

#### Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

#### Eye protection:

Safety glasses

Туре	Use	Characteristics	Standard
Safety glasses	Dust	With side shields	EN 166

#### Skin and body protection:

Wear suitable protective clothing

Туре	Standard
Lab coat	

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Dust mask	Туре Р1	Protection for Solid particles	EN 143, EN 149



#### Environmental exposure controls:

Avoid release to the environment.

<b>SECTION 9: Physical and chemica</b>	al properties
9.1. Information on basic physical and chemical properties	
Physical state	: Solid
Colour	: No data available
Odour	: None.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available

Safety Data Sheet

according to Regulation (EU) 2015/830

Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Solubility	: Soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

#### 9.2. Other information

No additional information available

SECT	ION 10: Stability and reactivity
	ION 10: Stability and reactivity
10.1.	Reactivity
The pro	duct is non-reactive under normal conditions of use, storage and transport.
10.2.	Chemical stability
Stable	under normal conditions.
10.3.	Possibility of hazardous reactions
Contac	t with acids liberates very toxic gas.
10.4.	Conditions to avoid
None u	nder recommended storage and handling conditions (see section 7).
10.5.	Incompatible materials
Acids.	
10.6.	Hazardous decomposition products
Under r	normal conditions of storage and use hazardous decomposition products should not be produced

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

1.1. Information on toxicological	effects	
Acute toxicity (oral)	: Oral: Harmful if swallowed.	
Acute toxicity (dermal)	: Not classified	
Acute toxicity (inhalation)	: Not classified	
ATE CLP (oral)	1121.0762331839 mg/kg bodyweight	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not classified	
TOT-single exposure	: Not classified	
STOT-repeated exposure	: Not classified	
Aspiration hazard	: Not classified	

<b>SECTION 12: Ecological information</b>	
12.1. Toxicity	
Ecology - general	: Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

Safety Data Sheet

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Harmful to aquatic life with long lasting effects.
12.2. Persistence and degradabi	sility
No additional information available	
12.3. Bioaccumulative potential	l de la constante de
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB a	assessment
No additional information available	
12.6. Other adverse effects	
No additional information available	
SECTION 13: Disposal consid	iderations
13.1. Waste treatment methods	
Waste treatment methods	<ul> <li>Dispose of contents/container in accordance with licensed collector's sorting instructions.</li> </ul>
SECTION 14: Transport infor	rmation
In accordance with ADR / RID / IMDG	
ADR	ΙΑΤΑ
14.1. UN number Not applicable	Natappliachte
	Not applicable
14.2. UN proper shipping name	Not applicable
Not applicable	
Not applicable 14.3. Transport hazard class(es)	6) Not applicable
Not applicable 14.3. Transport hazard class(es) Not applicable 14.4. Packing group	Not applicable
Not applicable <b>14.3. Transport hazard class(es)</b> Not applicable <b>14.4. Packing group</b> Not applicable	
Not applicable         14.3.       Transport hazard class(es)         Not applicable         14.4.       Packing group         Not applicable         14.5.       Environmental hazards	Not applicable           Not applicable
Not applicable <b>14.3. Transport hazard class(es)</b> Not applicable <b>14.4. Packing group</b> Not applicable	Not applicable       Not applicable       Not applicable       Not applicable
Not applicable 14.3. Transport hazard class(es) Not applicable 14.4. Packing group Not applicable 14.5. Environmental hazards	Not applicable           Not applicable
Not applicable <b>14.3. Transport hazard class(es)</b> Not applicable <b>14.4. Packing group</b> Not applicable <b>14.5. Environmental hazards</b> Not applicable	Not applicable       Not applicable       Not applicable       Not applicable       Not applicable       No supplementary information available
Not applicable         14.3.       Transport hazard class(es)         Not applicable         14.4.       Packing group         Not applicable         14.5.       Environmental hazards         Not applicable         14.5.       Environmental hazards         Not applicable         14.6.       Special precautions for use	Not applicable       Not applicable       Not applicable       Not applicable       Not applicable       No supplementary information available
Not applicable           I4.3.         Transport hazard class(es)           Not applicable         14.4.           Packing group         Not applicable           14.5.         Environmental hazards           Not applicable         14.5.	Not applicable       Not applicable       Not applicable       Not applicable       Not applicable       No supplementary information available
Not applicable          14.3.       Transport hazard class(es)         Not applicable       14.4.         Packing group       Not applicable         14.5.       Environmental hazards         Not applicable       14.6.         Special precautions for use       Overland transport         Not applicable       14.6.	Not applicable       Not applicable       Not applicable       Not applicable       Not applicable       No supplementary information available
Not applicable         14.3.       Transport hazard class(es)         Not applicable         14.4.       Packing group         Not applicable         14.5.       Environmental hazards         Not applicable         14.6.       Special precautions for use         • Overland transport	Not applicable       Not applicable       Not applicable       Not applicable       Not applicable       No supplementary information available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

#### SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

EN (English)

Safety Data Sheet

according to Regulation (EU) 2015/830

Full text of H- and EUH-state	nents:
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

#### SDS EU (REACH Annex II)

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.



F

SECTION 1.1.

Droduct for

### L-Malic Acid Assay Kit (Analyser Format) (Bottle 1)

Safety Data Sheet

according to Regulation (EU) 2015/830

	5 5 (-)				
	Date of issue: 05/06/2013	Revision date: 20/12/2017	Supersedes: 02/03/2017	Version: 1.3	
					j
N 1: Identification of	f the substance/mixtur	e and of the company/	/undertaking		
					1
Product identifier					
rm	Mixture				

FIGUUGLIOIII	MIXIUE	
Product name	L-Malic Acid Assay Kit (Analyser Format) (Bottle 1)	)
Product code	K-LMALAF (Bottle 1)	

1.2.	Relevant identified uses of the sub	ostance or mixture and uses advised against
1.2.1.	Relevant identified uses	
Industria	al/Professional use spec	: For professional use only
Use of t	he substance/mixture	: Use as laboratory reagent
1.2.2.	Uses advised against	
No addi	tional information available	
1.3.	Details of the supplier of the safety	y data sheet
A98 YV2 T +353	me siness Park 29 Bray - Ireland 12861220 - F +353 12861264 gazyme.com - <u>www.megazyme.com</u>	
1.4.	Emergency telephone number	
Emerge	ncy number	: +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

### **SECTION 2: Hazards identification**

Classification of the substance or mixture 2.1.

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2.	Label elements			
Labollin	a according to Pogulation (EC	No. 1272/2008 [CL	D1	
Labellin	ng according to Regulation (EC	) No. 1272/2008 [CL	P]	

: EUH210 - Safety data sheet available on request.

EUH032 - Contact with acids liberates very toxic gas.

2.3. **Other hazards** 

No additional information available

#### **SECTION 3: Composition/information on ingredients**

```
Substances
3.1.
```

Not applicable

**EUH-statements** 

#### **Mixtures** 3.2.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Glycylglycine	(CAS-No.) 556-50-3 (EC-No.) 209-127-8	1 - 5	Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.

# L-Malic Acid Assay Kit (Analyser Format) (Bottle 1) Safety Data Sheet

cording to Regulation (EU) 2015/830	· Wash skin with planty of water
First-aid measures after skin contact First-aid measures after eye contact	<ul> <li>Wash skin with plenty of water.</li> <li>Rinse eyes with water as a precaution.</li> </ul>
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
J.	
4.2. Most important symptoms and effe No additional information available	cts, both acute and delayed
	al attention and special treatment needed
Treat symptomatically.	
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the su	ubstance or mixture
Hazardous decomposition products in case of ire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release mea	isures
6.1. Personal precautions, protective ed	quipment and emergency procedures
6.1.1. For non-emergency personnel	
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".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containm	ent and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
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.
Hygiene measures	<ul> <li>Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>
7.2. Conditions for safe storage, include	ing any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/pers	sonal protection
3.1. Control parameters	
No additional information available	
3.2. Exposure controls	
3.2. Exposure controls	

Ensure good ventilation of the work station.

#### Hand protection:

#### Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		2 (< 1.5)	EN 374-2

Safety Data Sheet

according to Regulation (EU) 2015/830

#### Eye protection:

#### Safety glasses

Туре	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

#### Skin and body protection:

Wear suitable protective clothing

Туре	Standard
Lab coat	

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Dust mask	Туре Р1	Protection for Liquid particles	EN 143, EN 149



#### Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and	d chemical properties	
Physical state	: Liquid	
Colour	: No data available	
Odour	: None.	
Odour threshold	: No data available	
pH	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Not applicable	
Vapour pressure	: No data available	
Relative vapour density at 20 °C	: No data available	
Relative density	: No data available	
Solubility	: Soluble in water.	
Log Pow	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	
Explosive properties	: No data available	
Oxidising properties	: No data available	
Explosive limits	:	
9.2. Other information		
No additional information available		

No additional information available

# SECTION 10: Stability and reactivity 10.1. Reactivity The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

Safety Data Sheet

according to Regulation (EU) 2015/830

10.3.	Possibility of hazardous reactions
Contact	t with acids liberates very toxic gas.
10.4.	Conditions to avoid
None ur	nder recommended storage and handling conditions (see section 7).
10.5.	Incompatible materials
<b>10.5.</b> Acids.	Incompatible materials
	Incompatible materials Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological informat	ion		
11.1. Information on toxicological effects			
Acute toxicity (oral)	: Not classified		
Acute toxicity (dermal)	: Not classified		
Acute toxicity (inhalation)	: Not classified		
Skin corrosion/irritation	: Not classified		
Serious eye damage/irritation	: Not classified		
Respiratory or skin sensitisation	: 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. Toxicity	The second set is not a second beautiful to second		
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.		
Acute aquatic toxicity	: Not classified		
Chronic aquatic toxicity	: Not classified		
40.0 Device and device debut			
12.2. Persistence and degradability			
Glycylglycine (556-50-3)			
Persistence and degradability	Biodegradability in water: no data available.		
12.3. Bioaccumulative potential			
Glycylglycine (556-50-3)			
Bioaccumulative potential	Not established.		
12.4. Mobility in soil			
No additional information available			
12.5. Results of PBT and vPvB assessme	nt		
No additional information available			
12.6. Other adverse effects			
No additional information available			
<b>SECTION 13: Disposal consideration</b>	15		
13.1. Waste treatment methods			
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.		
SECTION 14: Transport information			
In accordance with ADR / RID / IMDG / IATA / ADN			
ADR	IATA		
14.1. UN number			

Safety Data Sheet

according to Regulation (EU) 2015/830

ADR	ΙΑΤΑ	
14.2. UN proper shipping name		
Not applicable	Not applicable	
14.3. Transport hazard class(es)		
Not applicable	Not applicable	
14.4. Packing group		
Not applicable	Not applicable	
14.5. Environmental hazards		
Not applicable	Not applicable	
No supplementary information available		

#### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Air transport

#### Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

#### Not applicable

#### SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### **SECTION 16: Other information**

#### Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation
EUH032	Contact with acids liberates very toxic gas.
EUH210	Safety data sheet available on request.

#### SDS EU (REACH Annex II)

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.