

	<h1>SAFETY DATA SHEET</h1>	Page : 1
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<h3>DOC0(102-105)</h3>

**SECTION 1 Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Identification of the product : Raw material  
 Product code : DOC0(102-105)  
 Trade name : L-Alanine  
 CAS number : 000056-41-7

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

1.2.1 Relevant identified uses : For research purposes only  
 1.2.2 Uses advised against : No additional information available

**1.3. Details of the supplier of the safety data sheet**

Company identification : Formedium Ltd.  
 Unit 1B Hunstanton Commercial Park  
 Norfolk PE365JQ  
 Tel: +44(0)1485 609069  
 Fax: +44(0)1485 600510  
 E-mail: info@formedium.com

**1.4. Emergency telephone number**

Emergency telephone number : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)  
 National Poison Information Centre : Europe UK : +44 0845 4647 (this service is only available to health professionals)  
 See [www.toxbase.org](http://www.toxbase.org) for a local poison centre

**SECTION 2 Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Not regulated

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008**

Hazards pictograms code : None  
 Precautionary statements : None

**2.3 Other hazards**

None under normal conditions.

	<h1>SAFETY DATA SHEET</h1>	Page : 2
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<h3>DOC0(102-105)</h3>

### SECTION 3 Composition/information on ingredients

#### 3.1 Substance / Preparation

Molecular weight g/mol : 89.1  
 Structural formula: : C3H7NO2

Substance name:	Contents	CAS No:	EC No:	Annex No:	Ref REACH	Classification
L-Alanine	> 98.5 %	56-41-7	200-273-8	--	--	--

### SECTION 4 First aid measures

#### 4.1. Description of first aid measures

- General information** : Seek medical attention if ill effects develop.
- Inhalation** : Remove victim to fresh air.
- Skin contact** : Wash skin with mild soap and water.
- Eye contact** : Rinse with water.
- Ingestion** : Rinse mouth.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effects, both acute and delayed. : No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

Medical attention and special treatment needed. : No data available.

### SECTION 5 Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray, Carbon dioxide (CO2) or Dry powder.

#### 5.2. Special hazards arising from the substance or mixture

When heated to decomposition, emits toxic fumes. Cox Nox

#### 5.3. Advice for firefighters

- Protection against fire** : Wear proper protective equipment.
- Special procedures** : Avoid (reject) fire fighting water to enter environment.

	<h1>SAFETY DATA SHEET</h1>	Page : 3
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<b>DOC0(102-105)</b>

**SECTION 6 Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Wear suitable protective equipment

**6.2 . Environmental precautions**

Prevent entry to sewers and public waters.

**6.3. Methods and material for containment and cleaning up**

Dispose in a safe manner in accordance with local/national regulations.  
Sweep up dry powder and dispose properly.

**6.4. Reference to other sections**

For disposal see section 13.

**SECTION 7 Handling and storage**

**7.1. Precautions for safe handling**

Store in a dry, well ventilated area.

**7.2. Conditions for safe storage, including any incompatibilities**

Store at room temperature.  
Keep container tightly closed and dry.  
Keep container tightly closed and protected from light.

**7.3. Specific end use(s)**

For research purposes only

**SECTION 8 Exposure controls/personal protection**

**8.1. Control parameters**

**8.2. Exposure controls**

- |                          |   |
|--------------------------|---|
| - Eye protection         | : Chemical goggles or safety glasses.                     |
| - Skin protection        | : Wear suitable protective clothing.                      |
| - Hand protection        | : Gloves  |
| - Respiratory protection | : P1 where excessive dust may result, wear approved mask. |

**SECTION 9 Physical and chemical properties**

- **Appearance**  

Appearance	: Powder
Colour	: Light yellow to white
- **Odour**  

Odour	: Characteristic
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	<h1>SAFETY DATA SHEET</h1>	Page : 4
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<h3>DOC0(102-105)</h3>

### SECTION 9 Physical and chemical properties (continued)

- Odour threshold  
Odour threshold : Not established.
- pH  
pH value : 5.5 – 7 (89.1 g/L)
- Melting point / Freezing point  
Melting point (°C) : 295 – 297
- Initial boiling point – boiling range  
Boiling point (°C) : No data available.
- Flash point  
Flash point (°C) : No data available.
- Evaporation rate  
Evaporation rate (ether =1) : No data available.
- Flammability  
Flammability range (vol % in air) : No data available.
- Explosion limits (lower – upper)  
Explosion limits : No data available.
- Vapour pressure  
Vapour pressure : No data available.
- Vapour density  
Relative vapour density (air=1) : 3.08
- Relative density  
Density : 1.4 g/cm<sup>3</sup>  
Bulk density : circa 660 kg/m<sup>3</sup>
- Solubility  
Solubility in water : 166.5 g/L
- Partition coefficient : n-octanol / water  
Log P octanol / water at 20°C : - 2.85
- Auto-ignition temperature  
Auto-ignition temperature (°C) : No data available.
- Thermal decomposition  
Thermal decomposition (°C) : No data available.
- Viscosity  
Viscosity : No data available.
- Explosive properties  
Explosive properties : Not established.
- Oxidising properties  
Oxidising properties : Not established.

#### 9.2 Other information

	<h1>SAFETY DATA SHEET</h1>	Page : 5
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<b>DOC0(102-105)</b>

### SECTION 10 Stability and reactivity

#### **10.1. Reactivity**

Stable under normal conditions.

#### **10.2. Chemical stability**

**Stability**

: Stable under recommended storage conditions.

#### **10.3. Possibility of hazardous reactions**

This product is non-hazardous.

#### **10.4. Conditions to avoid**

**Conditions to avoid**

: Light and moisture sensitive.  
Heat.

#### **10.5. Incompatible materials**

Oxidizing agents

#### **10.6. Hazardous decomposition products**

**Hazardous decomposition products**

: When heated to decomposition, emits dangerous fumes.  
COx  
NOx

### SECTION 11 Toxicological information

#### **11.1. Information on toxicological effects**

- Inhalation

: May cause irritation to the respiratory tract.

- Dermal

: May cause skin irritation.

- Ocular

: May cause eye irritation.

Rat oral LD50 (mg/Kg)

: > 16000

### SECTION 12 Ecological information

#### **12.1. Toxicity**

No data available.

#### **12.2. Persistence - degradability**

No data available.

#### **12.3. Bioaccumulative potential**

Bioaccumulation potential :

None

**BOD**

: 87% from TOD/5d

**COD**

: 77%

#### **12.4. Mobility in soil**

No data available.

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

No data available.

#### **12.6. Other adverse effects**

**Environmental precautions**

: Prevent entry to sewers and public waters.  
Avoid release to the environment.

**Formedium Ltd.**

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	<h1>SAFETY DATA SHEET</h1>	Page : 6
		Revised edition no : 0
		Date : 19 / 10 / 2017
		Supersedes : 31 / 7 / 2014
<h2>L-Alanine</h2>		<b>DOC0(102-105)</b>

### SECTION 13 Disposal considerations

#### **13.1. Waste treatment methods**

**Special precautions** : When not empty dispose of this container at hazardous or special waste collection point.

### SECTION 14 Transport information

#### **14.1. UN Number**

Not applicable.

**General information** : Not classified as dangerous in the meaning of transport regulations.

#### **14.2. UN Proper shipping name**

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 user**

Not applicable

### SECTION 15 Regulatory information

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

This safety data sheet complies with the requirements of Regulation (EU) No. 2015/830

#### **15.2. Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out.

### SECTION 16 Other information

**Further information** : The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

**Revision** : Complete SDS revision

End of document