

## L-Threonine

**DOC0(182-185)**

### 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(182-185)  
Trade name : L-Threonine  
CAS number : 000072-19-5

#### 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.  
King's Lynn, England, PE31 6DJ  
Tel: +44(0)1485 609069  
Web: www.Formedium.com  
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)  
NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours)

### 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.

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**L-Threonine****DOC0(182-185)****SECTION 3 Composition/information on ingredients****3.1 Substance / Preparation**Molecular weight g/mol : 119.12  
Structural formula: : C4H9O3

Substance name:	Contents	CAS No:	EC No:	Annex No:	Ref REACH	Classification
L-Threonine	> 99 %	72-19-5	200-774-1	--	--	--

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

**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.** : Breathing difficulties.

**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 (CO<sub>2</sub>), Foam or Dry powder.

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

When heated to decomposition, emits toxic fumes. CO<sub>x</sub> NO<sub>x</sub>

**5.3. Advice for firefighters**

**Protection against fire** : Wear proper protective equipment.

**Special procedures** : Avoid (reject) fire fighting water to enter environment.

**L-Threonine****DOC0(182-185)****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**

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 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** : Safety glasses.
- **Skin protection** : In case of possible repeated skin contact wear protective clothing.
- **Hand protection** : In case of repeated or prolonged contact wear gloves
- **Respiratory protection** : P1 where excessive dust may result, wear approved mask.

**SECTION 9 Physical and chemical properties****• Appearance**

**Appearance** : Powder

**Colour** : White

**• Odour**

**Odour** : Weak

**L-Threonine****DOC0(182-185)****SECTION 9 Physical and chemical properties (continued)**

- **Odour threshold**  
Odour threshold : Not established.
- **pH**  
pH value : Circa 5 – 6 (90 g/L)
- **Melting point / Freezing point**  
Melting point (°C) : 256 – 270
- **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) : The product is not flammable.
- **Explosion limits (lower – upper)**  
Explosion limits : No data available.
- **Vapour pressure**  
Vapour pressure : No data available.
- **Vapour density**  
Relative vapour density (air=1) : No data available.
- **Relative density**  
Density : No data available.  
Bulk density : circa 370 kg/m<sup>3</sup>
- **Solubility**  
Solubility in water : Circa 90 g/L
- **Partition coefficient : n-octanol / water**  
Log P octanol / water at 20°C : - 2.94
- **Auto-ignition temperature**  
Auto-ignition temperature (°C) : No data available.
- **Thermal decomposition**  
Thermal decomposition (°C) : Circa 270
- **Viscosity**  
Viscosity : No data available.
- **Explosive properties**  
Explosive properties : Not established.
- **Oxidising properties**  
Oxidising properties : Not established.

**9.2 Other information**

**L-Threonine****DOC0(182-185)****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**

Moisture.

**10.5. Incompatible materials**

Strong oxidizers.

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

None

**SECTION 11 Toxicological information****11.1. Information on toxicological effects****Rat oral LD50 (mg/Kg)**

3098 mg/kg

**11.2. Additional Information****Endocrine disrupting properties :**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**SECTION 12 Ecological information****12.1. Toxicity**

No data available.

**12.2. Persistence - degradability**

No data available.

**12.3. Bioaccumulative potential**

None under normal conditions.

**12.4. Mobility in soil**

No data available.

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

No data available.

**12.6. Other adverse effects**

No data available.

**Environmental precautions**: Prevent entry to sewers and public waters.  
Avoid release to the environment.**12.7. Endocrine disrupting properties**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**L-Threonine****DOC0(182-185)****SECTION 13 Disposal considerations****13.1. Waste treatment methods**

<b>General</b>	Avoid release to the environment.
<b>Special precautions</b>	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**

<b>Further information</b>	: 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.
<b>Revision</b>	: Complete SDS revision

End of document