

**Tammermatic BIOCAT**

Date 20.1.2017

Previous date: 30.4.2015

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****1.1.1 Commercial Product Name**

Tammermatic BIOCAT

**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Recommended use**

Nutrient for Biojet recycling system.

**1.3 Details of the supplier of the safety data sheet****1.3.1 Supplier**

Tammermatic Oy

**Street address**

Tesomanvaltatie 28

**Postcode and post office**

33300 Tampere

**P.O.Box**

PB 206

**Postcode and post office**

33101 Tampere

**Telephone**

+358-20 1373 403

**Telefax**

+358-20 1373 409

**Business ID**

1043549-7

**Email**

service@tammermatic.com

**1.4 Emergency telephone number****1.4.1 Telephone number, name and address**

Poison centrum in Finland +358-9-4711

Local emergency phone 112

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture**

Not a harmful chemical according to CLP legislation.

**2.2 Label elements****2.3 Other hazards****3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components****CAS/EC and Reg. number**57-13-6  
01-2119526957-25**Chemical name of the substance**

Urea

**Concentration Classification**

5-10 %

**3.3 Other information**

does not exist

**4. FIRST AID MEASURES****4.1 Description of first aid measures****4.1.2 Inhalation**

Normally not needed.

**4.1.3 Skin contact**

Remove contaminated clothing and rinse the skin with plenty of water.

**4.1.4 Eye contact**

Rinse under running water 10-15 min. Seek medical help if necessary.

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- 4.1.5 Ingestion**  
Wash out mouth thoroughly with water and give plenty of water or milk to drink. Seek medical help if necessary.
- 4.2 Most important symptoms and effects, both acute and delayed**
- 4.3 Indication of immediate medical attention and special treatment needed**  
nursing according to symptoms

**5. FIREFIGHTING MEASURES**

- 5.1 Extinguishing media**
- 5.1.1 Suitable extinguishing media**  
Product does not ignite. Extinguishing means according to the environment.
- 5.1.2 Extinguishing media which must not be used for safety reasons**  
not known
- 5.2 Special hazards arising from the substance or mixture**  
Product can degrade in fire and product toxic nitrogen compounds.
- 5.3 Advice for firefighters**  
In the case of large fire use full protective clothing and self-contained breathing apparatus with over pressure.
- 5.4 Specific methods**  
not known

**6. ACCIDENTAL RELEASE MEASURES**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Use safety goggles and safety gloves (e.g. neoprene, nitrile or laminated PE/EVOH) and appropriate protective clothing if necessary .
- 6.2 Environmental precautions**  
Do not allow to enter drinking water supplies, waste water or soil.
- 6.3 Methods and materials for containment and cleaning up**  
Absorb on an inert absorbent and transfer carefully to sealed container. Arrange for removal by disposal company. Rinse residues with plenty of water. Use protective equipment mentioned in 6.1.
- 6.4 Reference to other sections**  
does not exist

**7. HANDLING AND STORAGE**

- 7.1 Precautions for safe handling**  
Usual hygienic measures are necessary.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Storing tight sealed in original packages in a dry, warm place.
- 7.3 Specific end use(s)**

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

- 8.1 Control parameters**
- 8.1.1 Threshold limits**  
does not exist
- 8.1.2 Other information on limit values**  
not known
- 8.2 Exposure controls**
- 8.2.1 Appropriate engineering controls**  
Good general ventilation should be sufficient.

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- 8.2.2 Individual protection measures**
- 8.2.2.1 Respiratory protection**  
Normally not needed
- 8.2.2.2 Hand protection**  
Use safety gloves mentioned in item 6.1. if necessary.
- 8.2.2.3 Eye/face protection**  
Use safety goggles if there is possibilities for splashing.
- 8.2.2.4 Skin protection**  
Avoid continued skin contact.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Important Health Safety and Environmental Information**

- 9.1.1 Appearance**  
Greenish liquid.
- 9.1.2 Odour** mild odour
- 9.1.4 pH**  $7,0 \pm 0,5$
- 9.1.6 Initial boiling point and boiling range** not measured
- 9.1.7 Flash point** does not exist
- 9.1.9 Flammability (solid, gas)** not measured
- 9.1.10 Explosive properties**
- 9.1.10.1 Lower explosion limit** does not exist
- 9.1.10.2 Upper explosion limit** does not exist
- 9.1.11 Vapour pressure** not measured
- 9.1.13 Relative density** 1,05
- 9.1.14 Solubility(ies)**
- 9.1.14.1 Water solubility** miscible in all proportions
- 9.1.14.2 Fat solubility (solvent - oil to be specified)** not measured
- 9.1.15 Partition coefficient: n-octanol/water** not measured
- 9.1.18 Viscosity** not measured
- 9.1.20 Oxidising properties** does not exist
- 9.2 Other information**  
does not exist

**10. STABILITY AND REACTIVITY**

- 10.1 Reactivity**
- 10.2 Chemical stability**  
Product is stable at normal temperature
- 10.3 Possibility of hazardous reactions**
- 10.4 Conditions to avoid**  
not known
- 10.5 Incompatible materials**  
not known
- 10.6 Hazardous decomposition products**  
Nitrogen and carbon oxides, ammonia.

**11. TOXICOLOGICAL INFORMATION**

- 11.1 Information on toxicological effects**

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- 11.1.1 Acute toxicity**  
Urea: LD50=8471 mg/kg (oral, rat)
- 11.1.2 Irritation and corrosion**  
Product can irritate eyes.
- 11.1.3 Sensitisation**  
not known
- 11.1.4 Subacute, subchronic and prolonged toxicity**  
not known
- 11.1.5 STOT-single exposure**  
not known
- 11.1.8 Other information on acute toxicity**  
not known

**12. ECOLOGICAL INFORMATION**

- 12.1 Toxicity**
- 12.1.1 Aquatic toxicity**  
not known
- 12.1.2 Toxicity to other organisms**  
not known
- 12.2 Persistence and degradability**
- 12.2.1 Biodegradation**  
Product is biologically degradable.
- 12.2.2 Chemical degradation**  
not known
- 12.3 Bioaccumulative potential**  
no bioaccumulation
- 12.4 Mobility in soil**  
with water
- 12.5 Results of PBT and vPvB assessment**
- 12.6 Other adverse effects**  
not known

**13. DISPOSAL CONSIDERATIONS**

- 13.1 Waste treatment methods**  
Contact your local waste disposal authority for advise.

**14. TRANSPORT INFORMATION**

- 14.1 UN number**
- 14.2 UN proper shipping name**
- 14.3 Transport hazard class(es)** Transport regulations are not applied to this product
- 14.4 Packing group**
- 14.5 Environmental hazards**
- 14.6 Special precautions for users**
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**15. REGULATORY INFORMATION**

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

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**15.2 Chemical safety assessment**

Chemical safety assesment has not be done.

**16. OTHER INFORMATION****16.3 Key literature references and sources for data**

MSDS from the manufacturer. SAX: Dangerous Properties of Industrial Materials (11. edition).

**16.8 Additional information available from:**

Tammermatic Oy tel. +358-20-1373 403

**Date**

20.1.20157