Meta-TOPOLIN
Safety Data Sheet
according to Regulation (EU) 2015/830
Date of issue: 29/07/2011  Revision date 18/04/2018
Supersedes 20/12/2017

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

1.1. Product identifier
Product form : Substance
Trade name : Meta-TOPOLIN
CAS-No. : 75737-38-1
Product code : T0941
Formula : C12H11N5O

1.2. Relevant identified uses of the substance or mixture and uses advised against
1.2.1. Relevant identified uses
Main use category : Professional use
Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Duchefa Biochemie B.V.
A. Hofmanweg 71
2031 BH Haarlem - The Netherlands
T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.nl

1.4. Emergency telephone number
Emergency number : Supplier contact information:
+31(0)23-5319093 (M-F 09:00-17:00)
+31(0)6-30109355 (outside office hours)

<table>
<thead>
<tr>
<th>Organisation/Company</th>
<th>Address</th>
<th>Comment</th>
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<tbody>
<tr>
<td>World Health Organization world</td>
<td><a href="http://apps.who.int/poisoncentres/">http://apps.who.int/poisoncentres/</a></td>
<td>Consult website for a local poison centre</td>
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<tr>
<td>directory of poison centres</td>
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</table>

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
No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
No labelling applicable

2.3. Other hazards
No additional information available
SECTION 3: Compositioninformation on ingredients

3.1. Substances
Name: Meta-TOPOLIN
CAS-No.: 75737-38-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
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<tr>
<td>Meta-TOPOLIN</td>
<td>(CAS-No.) 75737-38-1</td>
<td>&gt;= 99</td>
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</tbody>
</table>

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: Seek medical attention if ill effect or irritation develops.
First-aid measures after inhalation: Assure fresh air breathing.
First-aid measures after skin contact: Wash skin with mild soap and water.
First-aid measures after eye contact: Rinse with water.
First-aid measures after ingestion: Rinse mouth out with water.

4.2. Most important symptoms and effects, both acute and delayed
No additional information available

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Dry chemical, CO2, or water spray or regular foam.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition products in case of fire: Thermal decomposition generates:
- COx
- NOx.

5.3. Advice for firefighters
Firefighting instructions: Prevent fire fighting water from entering the environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel
Protective equipment: Wear suitable protective clothing.
Measures in case of dust release: Avoid dust formation.

6.1.2. For emergency responders
No additional information available

6.2. Environmental precautions
Prevent entry to sewers and public waters. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Sweep up dry powder and dispose properly.

6.4. Reference to other sections
No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Handle in accordance with good industrial hygiene and safety procedures. Avoid dust formation.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in dry, well-ventilated area. Keep container tightly closed.
Storage temperature: 2 - 8 °C

7.3. Specific end use(s)
For professional use only. Duchefa Biochemie B.V. products are intended only for “in vitro laboratory” research purposes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
No additional information available

8.2. Exposure controls
Hand protection:

<table>
<thead>
<tr>
<th>Type</th>
<th>Material</th>
<th>Permeation</th>
<th>Thickness (mm)</th>
<th>Standard</th>
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</thead>
<tbody>
<tr>
<td>Gloves</td>
<td>Nitrile rubber (NBR)</td>
<td>6 (&gt; 480 minutes)</td>
<td>0,11</td>
<td>EN 374</td>
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</tbody>
</table>

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Dust production: dust mask with filter type P1

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Solid
Appearance: Powder.
Molecular mass: 241,4 g/mol
### Colour
: White
  Yellow.

### Odour
: Odourless.

### Odour threshold
: No data available

### pH
: No data available

### Relative evaporation rate (butylacetate=1)
: No data available

### Melting point
: 272 - 284 °C Decomposes above

### 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)
: No data available

### Vapour pressure
: No data available

### Relative vapour density at 20 °C
: No data available

### Relative density
: No data available

### Solubility
: Readily 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
: No data available

#### 9.2. Other information
No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
No additional information available

#### 10.2. Chemical stability
Stable under normal conditions of use.

#### 10.3. Possibility of hazardous reactions
No additional information available

#### 10.4. Conditions to avoid
Moisture.

#### 10.5. Incompatible materials
No additional information available

#### 10.6. Hazardous decomposition products
- COx
- NOx

When heated to decomposition, emits dangerous fumes:
SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : 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
No additional information available

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IATA / IMDG

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
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<tbody>
<tr>
<td>14.1. UN number</td>
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<td>Not applicable</td>
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<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
14.3. Transport hazard class(es)
Not applicable
Not applicable
Not applicable

14.4. Packing group
Not applicable
Not applicable
Not applicable

14.5. Environmental hazards
Not applicable
Not applicable
Not applicable

No supplementary information available

14.6. Special precautions for user

- Overland transport
Not applicable

- Transport by sea
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
No REACH Annex XVII restrictions
Meta-TOPOLIN is not on the REACH Candidate List
Meta-TOPOLIN is not on the REACH Annex XIV List

15.1.2. National regulations

Germany
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands
SZW-lijst van kankerverwekkende stoffen : The substance is not listed
SZW-lijst van mutagene stoffen : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information
Indication of changes:

<table>
<thead>
<tr>
<th>1.1</th>
<th>EC-No.</th>
<th>Removed</th>
<th>Erroneous use of EC number</th>
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Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>ATE</th>
<th>Acute Toxicity Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>CLP</td>
<td>Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>DPD</td>
<td>Dangerous Preparations Directive 1999/45/EC</td>
</tr>
<tr>
<td>DSD</td>
<td>Dangerous Substances Directive 67/548/EEC</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
</tr>
<tr>
<td>LC50</td>
<td>Median lethal concentration</td>
</tr>
<tr>
<td>LD50</td>
<td>Median lethal dose</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>NOAEC</td>
<td>No-Observed Adverse Effect Concentration</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent Bioaccumulative Toxic</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
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</tbody>
</table>


SDS Biochemicals version 2018

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.