Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

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

1.1. Product identifier

Product name: Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth
Product code: NCM0126 LAB202, 9221

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

Product Use: [SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [PROC15] Use as laboratory reagent.

1.3. Details of the supplier of the safety data sheet

Company: Neogen Corporation
Address: 620 Lesher Place
Lansing MI 48912 USA
Web: www.neogen.com
Telephone: 517-372-9200/800-234-5333
Email: SDS@neogen.com

1.4. Emergency telephone number

Emergency telephone number: 1-800-234-5333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - EC 1272/2008: The product is classified as non hazardous.

2.2. Label elements

P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P501 - Dispose of contents/container to an appropriate waste site or reclaim (in accordance with local/regional/national/international regulation).

2.3. Other hazards

Other hazards: This product is not identified as a PBT substance.
SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Index No.</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>REACH Registration Number</th>
<th>Conc. (%w/w)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td>471-34-1</td>
<td>207-439-9</td>
<td>207-439-9</td>
<td></td>
<td>40 - 50%</td>
<td></td>
</tr>
<tr>
<td>Sodium Thiosulfate</td>
<td>7772-98-7</td>
<td>231-867-5</td>
<td>231-867-5</td>
<td></td>
<td>30 - 40%</td>
<td></td>
</tr>
<tr>
<td>Special Bile</td>
<td>68990-09-0</td>
<td>273-578-7</td>
<td>273-578-7</td>
<td></td>
<td>1 - 10%</td>
<td>Skin Irrit. 2: H315; Eye Irrit. 2: H319;</td>
</tr>
</tbody>
</table>

Further information

Full text for all Risk Phrases mentioned in this section are displayed in Section 16. Exposure limits. See section 8 for further information.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Eye contact

Contact lenses should be removed. Rinse immediately with plenty of water for 15 minutes holding the eyelids open.

Skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Ingestion

Keep the affected person warm and at rest. DO NOT INDUCE VOMITING unless advised to do so by a doctor. Rinse mouth thoroughly.

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

Inhalation

May cause irritation to respiratory system.

Eye contact

May cause irritation to eyes.

Skin contact

May cause irritation to skin.

Ingestion

Ingestion may cause nausea and vomiting.

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

Inhalation

Seek medical attention if irritation or symptoms persist.

Eye contact

Seek medical attention if irritation or symptoms persist.

Skin contact

Seek medical attention if irritation or symptoms persist.

Ingestion

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use as appropriate: Carbon dioxide (CO2), Alcohol resistant foam, Powder.

5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Wear suitable respiratory equipment when necessary. Wear suitable protective clothing, gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

6.1. Personal precautions, protective equipment and emergency procedures
No precautions required to be mentioned.

6.2. Environmental precautions
Do not empty into drains; dispose of this material and its container in a safe way.

6.3. Methods and material for containment and cleaning up
Avoid raising dust. Sweep up. Dispose of in compliance with all local and national regulations.

6.4. Reference to other sections
See section 8 & 13 for further information.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Do not eat, drink or smoke in areas where this product is used or stored. Wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Store at temperatures between 2 °C and 30 °C. Store in original container. Keep container tightly closed and dry. Protect from moisture.

7.3. Specific end use(s)
See section 1.2 for further information.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure above the recommended occupational exposure limit (OEL) may cause adverse health effects.

8.1.1. Exposure Limit Values

<table>
<thead>
<tr>
<th>Substance</th>
<th>WEL 8-hr limit ppm</th>
<th>WEL 8-hr limit mg/m³</th>
<th>WEL 15 min limit ppm</th>
<th>WEL 15 min limit mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Thiosulfate</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

8.2.1. Appropriate engineering controls
Ensure adequate ventilation of the working area.
Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

8.2. Exposure controls

8.2.2. Individual protection measures

<table>
<thead>
<tr>
<th>Protection</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye / face protection</td>
<td>Safety glasses with side-shields.</td>
</tr>
<tr>
<td>Skin protection - Hand protection</td>
<td>Chemical resistant gloves.</td>
</tr>
<tr>
<td>Skin protection - Other</td>
<td>Wear suitable protective clothing.</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment.</td>
</tr>
<tr>
<td>Thermal hazards</td>
<td>No data is available on this product.</td>
</tr>
</tbody>
</table>

8.2.3. Environmental exposure controls

Avoid release to the environment. Refer to special instructions/Safety data sheets. See section 7 for further information.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Colour</td>
<td>Beige</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>pH</td>
<td>7.8 - 8.2</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Fat Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene Content</td>
<td>No data available</td>
</tr>
<tr>
<td>Lead content</td>
<td>No data available</td>
</tr>
<tr>
<td>VOC (Volatile organic compounds)</td>
<td>No data available</td>
</tr>
<tr>
<td>Conductivity</td>
<td>No data available</td>
</tr>
<tr>
<td>Surface tension</td>
<td>No data available</td>
</tr>
<tr>
<td>Gas group</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions. See section 7 for further information.
## Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

### 10.2. Chemical stability

Will not decompose if stored and used as recommended.

### 10.3. Possibility of hazardous reactions

No precautions required to be mentioned. Stable under normal conditions.

### 10.4. Conditions to avoid

No precautions required to be mentioned.

### 10.5. Incompatible materials

No precautions required to be mentioned.

### 10.6. Hazardous decomposition products

Carbon oxides, Organic materials may be formed in fire conditions. Fire will produce dense black smoke.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
<td>No data is available on this product. See section 3 for further information.</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td>May cause irritation to skin. See section 3 for further information.</td>
</tr>
<tr>
<td><strong>Serious eye damage/irritation</strong></td>
<td>May cause irritation to eyes. See section 3 for further information.</td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitisation</strong></td>
<td>May cause sensitisation by inhalation and skin contact. See section 3 for further information.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td>No data is available on this product.</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td>No data is available on this product.</td>
</tr>
<tr>
<td><strong>Reproductive toxicity</strong></td>
<td>No data is available on this product.</td>
</tr>
<tr>
<td><strong>STOT-single exposure</strong></td>
<td>No data is available on this product.</td>
</tr>
<tr>
<td><strong>STOT-repeated exposure</strong></td>
<td>No data is available on this product.</td>
</tr>
<tr>
<td><strong>Aspiration hazard</strong></td>
<td>No data is available on this product. See section 3 for further information.</td>
</tr>
<tr>
<td><strong>Repeated or prolonged exposure</strong></td>
<td>No data is available on this product. See section 3 for further information.</td>
</tr>
</tbody>
</table>

### 11.1.2. Mixtures

See section 3 for further information.

### 11.1.3. Hazard Information

See section 3 for further information.

### 11.1.4. Toxicological Information

No data available

### 11.1.5. Hazard Class

No Significant Hazard.

### 11.1.6. Classification Criteria

Not applicable.

### 11.1.7. Information on likely routes of exposure

Skin contact. Inhalation.

### 11.1.8. Symptoms related to the physical, chemical and toxicological characteristics

No data is available on this product.
Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

11.1.9. Delayed and immediate effects as well as chronic effects from short and long-term exposure
No data is available on this product.

11.1.10. Interactive effects
No data is available on this product.

11.1.11. Absence of specific data
No data available.

11.1.12. Mixture versus substance information
Not applicable.

11.1.13. Other information
Not applicable.

SECTION 12: Ecological information

12.1. Toxicity
No data available

12.2. Persistence and degradability
No data is available on this product.

12.3. Bioaccumulative potential
No data is available on this product.

Partition coefficient

<table>
<thead>
<tr>
<th>Muller-Kauffmann</th>
<th>Tetrathionate-Novobiocin</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>(MKTTn) Broth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No data is available on this product.

12.5. Results of PBT and vPvB assessment
No data is available on this product.

12.6. Other adverse effects
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Dispose of in compliance with all local and national regulations.

Disposal methods
Contact a licensed waste disposal company. Do not flush into surface water. This material and its container must be disposed of in a safe way.

Disposal of packaging
Empty containers can be sent for disposal or recycling. Containers can be recycled if in compliance with local and national regulations. Do NOT reuse empty containers.

SECTION 14: Transport information

14.1. UN number
### Muller-Kauffmann Tetrathionate-Novobiocin (MKTTn) Broth

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.6. Special precautions for user</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
<tr>
<td>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>The product is not classified as dangerous for carriage.</td>
</tr>
</tbody>
</table>

### SECTION 15: Regulatory information

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

**Regulations**


15.2. Chemical safety assessment

No data is available on this product.

### SECTION 16: Other information

**Other information**

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**Revision**

This document differs from the previous version in the following areas:
- 7 - 7.2. Conditions for safe storage, including any incompatibilities.
- 12 - 12.1. Toxicity.

**Text of Hazard Statements in Section 3**

Skin Irrit. 2: H315 - Causes skin irritation.
Eye Irrit. 2: H319 - Causes serious eye irritation.