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

Identification of the substance or mixture

Product code 4404307
Product name BTL, HI-DI FORMAMIDE 5ML

Company/undertaking identification

Life Technologies
5791 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies Japan Ltd.
Sumitomo Fudosan Mita Twin Bldg. East Wing
4-2-8 Shibaura, Minato-ku
Tokyo 108-0023
Japan
TEL +81-3-6832-9300

24 hour Emergency Response:
866-536-0631
301-431-8585
Outside of the U.S. ++1-301-431-8585

For in vitro diagnostic use. CAUTION: Not for human or animal therapeutic use.

SECTION 2: Hazards identification

GHS - Classification

Signal word Danger

Health hazards
Specific target organ systemic toxicity (repeated exposure) Category 2
Carcinogenicity Category 2
Reproductive toxicity Category 1B

Revision date 03-Feb-2015
Product code 4404307
Product name BTL, HI-DI FORMAMIDE 5ML

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Precautionary Statements
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P314 - Get medical advice/attention if you feel unwell
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P281 - Use personal protective equipment as required

Hazard Statements
H360 - May damage fertility or the unborn child
H351 - Suspected of causing cancer
H371 - May cause damage to organs

Principle Routes of Exposure/
Potential Health effects
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>eyes</td>
<td>May cause eye irritation with susceptible persons</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause skin irritation in susceptible persons</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of respiratory tract</td>
</tr>
<tr>
<td>INGESTION</td>
<td>May be harmful if swallowed</td>
</tr>
</tbody>
</table>

Specific effects
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenic effects</td>
<td>Carcinogenic category 2</td>
</tr>
<tr>
<td>Mutagenic effects</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility May cause harm to the unborn child</td>
</tr>
<tr>
<td>Sensitisation</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Target Organ Effects
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>eyes</td>
<td></td>
</tr>
<tr>
<td>Skin</td>
<td></td>
</tr>
<tr>
<td>Kidney</td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td></td>
</tr>
<tr>
<td>Central Nervous System (CNS)</td>
<td></td>
</tr>
<tr>
<td>Respiratory system</td>
<td></td>
</tr>
<tr>
<td>Reproductive System</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>75-12-7</td>
<td>60-100</td>
</tr>
</tbody>
</table>

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Skin contact
Wash off immediately with plenty of water. In the case of skin irritation or allergic reactions see a doctor.
ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas.

INGESTION

Rinse mouth. Consult a doctor if necessary. Do not induce vomiting without medical advice.

INHALATION

Remove to fresh air. Consult a doctor if necessary.

NOTES TO PHYSICIAN

Treat symptomatically.

SECTION 5: Firefighting measures

Suitable extinguishing media


Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

PERSONAL PRECAUTIONS

Use personal protection equipment.

METHODS FOR CLEANING UP

Soak up with inert absorbent material.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so.

See Section 12 for more information.

SECTION 7: Handling and storage

HANDLING

Avoid contact with skin and eyes. Always wear recommended Personal Protective Equipment.

STORAGE

Keep in properly labelled containers.

SECTION 8: Exposure controls/personal protection

EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Japan REL - Ceiling Limits</th>
<th>Japan OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide 75-12-7</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment requirements are dependent on the user institution’s risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

RESPIRATORY PROTECTION

In case of insufficient ventilation, wear suitable respiratory equipment.

HAND PROTECTION

Impervious gloves.

EYE PROTECTION

Safety glasses with side-shields.

SKIN AND BODY PROTECTION

Lightweight protective clothing.

HYGIENE MEASURES

Handle in accordance with good industrial hygiene and safety practice.

ENVIRONMENTAL EXPOSURE CONTROLS

Prevent product from entering drains.

revision date 03-Feb-2015

product code 4404307

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SECTION 9: Physical and chemical properties

General information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>°C 210 °F 410</td>
</tr>
<tr>
<td>Melting point / melting range</td>
<td>°C 2 °F 35-36</td>
</tr>
<tr>
<td>flash point</td>
<td>°C 154 °F 309-310</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>°C no data available °F no data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

Stability
Stable under normal conditions.

Materials to avoid
Strong oxidising agents.

Hazardous decomposition products
Carbon oxides, Nitrogen Oxides.

polymerisation
Hazardous polymerisation does not occur.

SECTION 11: Toxicological information

Acute toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 (oral,rat/mouse)</th>
<th>LD50 (dermal,rat/rabbit)</th>
<th>LC50 (inhalation,rat/mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>no data available</td>
<td>13500 mg/kg</td>
<td>3900 ppm/6H</td>
</tr>
</tbody>
</table>

Principle Routes of Exposure/
Potential Health effects

eyes May cause eye irritation with susceptible persons
Skin May cause skin irritation in susceptible persons
Inhalation May cause irritation of respiratory tract
INGESTION May be harmful if swallowed

Carcinogenic effects Carcinogenic category 2
Mutagenic effects No information available
Reproductive toxicity May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. May cause harm to the unborn child.
Sensitisation No information available

Target Organ Effects eyes Skin Kidney Liver Central Nervous System (CNS) Respiratory system Reproductive System

SECTION 12: Ecological information

Ecotoxicity Daphnia magna
**Daphnia magna**
EC50 > 500 mg/L (48 h)

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<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Freshwater Algae Data</th>
<th>Water Flea Data</th>
<th>Freshwater Fish Species Data</th>
<th>Microtox Data</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>Desmodesmus subspicatus EC50 &gt; 500 mg/L (96 h) Desmodesmus subspicatus EC50 &gt; 500 mg/L (72 h)</td>
<td>Daphnia magna EC50 &gt; 500 mg/L (48 h)</td>
<td></td>
<td></td>
<td>logPow-0.82</td>
</tr>
</tbody>
</table>

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**SECTION 13: Disposal considerations**

Dispose of contents/containers in accordance with local regulations.

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**SECTION 14: Transport information**

**IATA**

- **Proper Shipping Name**: Not classified as dangerous in the meaning of transport regulations.
- **Hazard Class**: None
- **Subsidiary class**: None
- **Packing group**: None
- **UN-No**: None

---

**SECTION 15: Regulatory information**

**Japan Chemical Inventories**

Complies

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Japan ISHL</th>
<th>Japan PRTR</th>
<th>Japan PDSCL</th>
<th>Japan Fire Service Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>&gt;1</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Group 4 - Flammable liquids III (listed under 3rd Class petroleums - soluble)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight percent</th>
<th>Japan - Air Pollution Control Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>60-100</td>
<td>400 - 60000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight percent</th>
<th>Japan - Fire Service Law - Designation of Materials Requiring Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide</td>
<td>60-100</td>
<td>4000L TQ 3rd Class petroleums - soluble</td>
</tr>
</tbody>
</table>

---

**SECTION 16: Other information**
Unless specifically referenced in section 15 of this SDS, we have determined that this product does not require further notification or listing under the following Japanese regulations or laws: Fire Service Law, Poisonous and Deleterious Substance Control Law, Pollutant Release and Transfer Register, Industrial Safety and Health Law, Chemical Substance Control Law, Prohibition of Chemical Weapons and Regulation Specific Chemicals, Water Pollution Control Law, Air Pollution Control Law, Narcotics and Psychotropic Control Act, Stimulants Control Act, and Cannabis Control Act.

**Reason for revision**
SDS sections updated

For in vitro diagnostic use. CAUTION: Not for human or animal therapeutic use.

“The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE”

**End of Safety Data Sheet**