SAFETY DATA SHEET
Seahorse XF Mito Fuel Flex Test Kit, Part Number 103260-100

Section 1. Identification

1.1 Product identifier
Product name : Seahorse XF Mito Fuel Flex Test Kit, Part Number 103260-100
Part No. (Chemical Kit) : 103260-100
Part No. : Etomoxir Not available.
          BPTES    Not available.
          UK5099   Not available.
Validation date : 11/20/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses : For research use only. Not for use in diagnostic procedures (RUO).
Etomoxir 6 x 0.379 mg
BPTES    6 x 17.083 mg
UK5099   6 x 17.360 mg

1.3 Details of the supplier of the safety data sheet
Supplier/Manufacturer : Agilent Technologies, Inc.
                      5301 Stevens Creek Blvd
                      Santa Clara, CA 95051, USA
                      800-227-9770

1.4 Emergency telephone number
In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture
OSHA/HCS status : Etomoxir
          BPTES
          UK5099

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture
Etomoxir
Comb. Dusts          COMBUSTIBLE DUSTS
H301                ACUTE TOXICITY (oral) - Category 3

Ingredients of unknown toxicity : BPTES
                                  UK5099
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

Date of issue : 11/20/2017
Section 2. Hazards identification

2.2 GHS label elements

Hazard pictograms : Etomoxir

Signal word : 
Etomoxir Danger
BPTES No signal word.
UK5099 No signal word.

Hazard statements : 
Etomoxir No Code(s) - May form combustible dust concentrations in air.
H301 - Toxic if swallowed.
BPTES No known significant effects or critical hazards.
UK5099 No known significant effects or critical hazards.

Precautionary statements

Prevention : 
Etomoxir P270 - Do not eat, drink or smoke when using this product.
P264 - Wash hands thoroughly after handling.
BPTES Not applicable.
UK5099 Not applicable.

Response : 
Etomoxir P301 + P310 + P330 - IF SWALLOWED:
Immediately call a POISON CENTER or physician.
Rinse mouth.
BPTES Not applicable.
UK5099 Not applicable.

Storage : 
Etomoxir P405 - Store locked up.
BPTES Not applicable.
UK5099 Not applicable.

Disposal : 
Etomoxir P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
BPTES Not applicable.
UK5099 Not applicable.

Supplemental label elements : 
Etomoxir Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
BPTES None known.
UK5099 None known.

2.3 Other hazards

Hazards not otherwise classified : 
Etomoxir None known.
BPTES None known.
UK5099 None known.

Section 3. Composition/information on ingredients

Substance/mixture : 
Etomoxir Substance
BPTES Mixture
UK5099 Mixture

Date of issue : 11/20/2017
### Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>100</td>
<td>828934-41-4</td>
</tr>
<tr>
<td>(R)-(+)-2-[(6-(4-Chlorophenoxy)hexyl]-oxirane-2-carboxylic acid sodium salt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BPTES Sodium chloride</td>
<td>≤3</td>
<td>7647-14-5</td>
</tr>
<tr>
<td>UK5099 Sodium chloride</td>
<td>≤3</td>
<td>7647-14-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

### Section 4. First aid measures

#### 4.1 Description of necessary first aid measures

**Eye contact**

- Etomoxir
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

- BPTES
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

- UK5099
  - Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation**

- Etomoxir
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

- BPTES
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

- UK5099
  - Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
## Section 4. First aid measures

### Skin contact
- **Etomoxir**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- **BPTES**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- **UK5099**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

### Ingestion
- **Etomoxir**: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- **BPTES**: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- **UK5099**: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Etomoxir</th>
<th>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPTES</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>UK5099</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Etomoxir</th>
<th>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPTES</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>UK5099</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Etomoxir</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPTES</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>UK5099</td>
<td></td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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**Date of issue**: 11/20/2017
Section 4. First aid measures

**Ingestion**
- **Etomoxir**: Toxic if swallowed.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Eye contact**
- **Etomoxir**: Adverse symptoms may include the following: irritation
  redness
- **BPTES**: No specific data.
- **UK5099**: No specific data.

**Inhalation**
- **Etomoxir**: Adverse symptoms may include the following: respiratory tract irritation
  coughing
- **BPTES**: No specific data.
- **UK5099**: No specific data.

**Skin contact**
- **Etomoxir**: No specific data.
- **BPTES**: No specific data.
- **UK5099**: No specific data.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**
- **Etomoxir**: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- **BPTES**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **UK5099**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- **Etomoxir**: No specific treatment.
- **BPTES**: No specific treatment.
- **UK5099**: No specific treatment.

**Protection of first-aiders**
- **Etomoxir**: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- **BPTES**: No action shall be taken involving any personal risk or without suitable training.
- **UK5099**: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**5.1 Extinguishing media**

**Suitable extinguishing media**
- **Etomoxir**: Use dry chemical powder.
- **BPTES**: Use an extinguishing agent suitable for the surrounding fire.
- **UK5099**: Use an extinguishing agent suitable for the surrounding fire.
## Section 5. Fire-fighting measures

### Unsuitable extinguishing media

<table>
<thead>
<tr>
<th>Substance</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>Avoid high pressure media which could cause the formation of a potentially explosive dust-air mixture.</td>
</tr>
<tr>
<td>BPTES</td>
<td>None known.</td>
</tr>
<tr>
<td>UK5099</td>
<td>None known.</td>
</tr>
</tbody>
</table>

### 5.2 Special hazards arising from the substance or mixture

#### Specific hazards arising from the chemical

<table>
<thead>
<tr>
<th>Substance</th>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>Decomposition products may include the following materials:</td>
</tr>
<tr>
<td></td>
<td>carbon dioxide</td>
</tr>
<tr>
<td></td>
<td>carbon monoxide</td>
</tr>
<tr>
<td></td>
<td>halogenated compounds</td>
</tr>
<tr>
<td></td>
<td>carbonyl halides</td>
</tr>
<tr>
<td></td>
<td>metal oxide/oxides</td>
</tr>
<tr>
<td>BPTES</td>
<td>Decomposition products may include the following materials:</td>
</tr>
<tr>
<td></td>
<td>halogenated compounds</td>
</tr>
<tr>
<td></td>
<td>metal oxide/oxides</td>
</tr>
<tr>
<td>UK5099</td>
<td>Decomposition products may include the following materials:</td>
</tr>
<tr>
<td></td>
<td>halogenated compounds</td>
</tr>
<tr>
<td></td>
<td>metal oxide/oxides</td>
</tr>
</tbody>
</table>

#### Hazardous thermal decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>May form explosible dust-air mixture if dispersed.</td>
</tr>
<tr>
<td>BPTES</td>
<td>No specific fire or explosion hazard.</td>
</tr>
<tr>
<td>UK5099</td>
<td>No specific fire or explosion hazard.</td>
</tr>
</tbody>
</table>

### 5.3 Advice for firefighters

#### Special protective actions for fire-fighters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.</td>
</tr>
<tr>
<td>BPTES</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
<tr>
<td>UK5099</td>
<td>Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.</td>
</tr>
</tbody>
</table>

#### Special protective equipment for fire-fighters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Equipment and training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
<tr>
<td>BPTES</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
<tr>
<td>UK5099</td>
<td>Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.</td>
</tr>
</tbody>
</table>
Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**
- Etomoxir: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- BPTES: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

- UK5099: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

**For emergency responders**
- Etomoxir: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- BPTES: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- UK5099: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- Etomoxir: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

- BPTES: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

- UK5099: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up
Section 6. Accidental release measures

Methods for cleaning up:

- **Etomoxir**: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

- **BPTES**: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

- **UK5099**: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

**Protective measures**:

- **Etomoxir**: Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

- **BPTES**: Put on appropriate personal protective equipment (see Section 8).

- **UK5099**: Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene**:

- **Etomoxir**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- **BPTES**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- **UK5099**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face...
Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Compound</th>
<th>Storage temperature</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td>Room temperature.</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>BPTES</td>
<td>Room temperature.</td>
<td>Industrial applications, Professional applications.</td>
</tr>
<tr>
<td>UK5099</td>
<td>Room temperature.</td>
<td>Industrial applications, Professional applications.</td>
</tr>
</tbody>
</table>

7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Industrial applications, Professional applications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir</td>
<td></td>
</tr>
<tr>
<td>BPTES</td>
<td></td>
</tr>
<tr>
<td>UK5099</td>
<td></td>
</tr>
</tbody>
</table>

Date of issue: 11/20/2017
Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etomoxir (R)-(+)(-2-[6-(4-Chlorophenoxy)hexyl]-oxirane-2-carboxylic acid sodium salt</td>
<td>None.</td>
</tr>
<tr>
<td>BPTES Sodium chloride</td>
<td>None.</td>
</tr>
<tr>
<td>UK5099 Sodium chloride</td>
<td>None.</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls

Environmental exposure controls

Individual protection measures

Hygiene measures

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Eye/face protection

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Skin protection

Hand protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Body protection

: Appropriate footware and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
### 9.1 Information on basic physical and chemical properties

#### Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Etomoxir</th>
<th>BPTES</th>
<th>UK5099</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td>Soluble in the following materials: cold water and hot water.</td>
<td>Soluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Etomoxir</th>
<th>BPTES</th>
<th>UK5099</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Section 10. Stability and reactivity

#### 10.1 Reactivity

- **Etomoxir**: No specific test data related to reactivity available for this product or its ingredients.
- **BPTES**: No specific test data related to reactivity available for this product or its ingredients.
- **UK5099**: No specific test data related to reactivity available for this product or its ingredients.

#### 10.2 Chemical stability

- **Etomoxir**: The product is stable.
- **BPTES**: The product is stable.
- **UK5099**: The product is stable.

#### 10.3 Possibility of hazardous reactions

- **Etomoxir**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **BPTES**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **UK5099**: Under normal conditions of storage and use, hazardous reactions will not occur.

#### 10.4 Conditions to avoid

- **Etomoxir**: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
- **BPTES**: No specific data.
- **UK5099**: No specific data.

#### 10.5 Incompatible materials

- **Etomoxir**: Reactive or incompatible with the following materials: oxidizing materials.
- **BPTES**: May react or be incompatible with oxidizing materials.
- **UK5099**: May react or be incompatible with oxidizing materials.

#### 10.6 Hazardous decomposition products

- **Etomoxir**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **BPTES**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **UK5099**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPTES</strong></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Sodium chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UK5099</strong></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Sodium chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPTES</strong></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>UK5099</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.
Section 11. Toxicological information

Information on the likely routes of exposure:

**ETOMOXIR**
- **Inhalation**: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- **Ingestion**: Toxic if swallowed.
- **Skin contact**: No known significant effects or critical hazards.
- **Eye contact**: Irritation, redness.

**BPTES**
- **Inhalation**: No known significant effects or critical hazards.
- **Eye contact**: No specific data.

**UK5099**
- **Inhalation**: No known significant effects or critical hazards.
- **Eye contact**: No specific data.

Potential acute health effects:

- **Eye contact**: Etomoxir - Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
  - BPTES - No known significant effects or critical hazards.
  - UK5099 - No known significant effects or critical hazards.

- **Inhalation**: Etomoxir - Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
  - BPTES - No known significant effects or critical hazards.
  - UK5099 - No known significant effects or critical hazards.

- **Skin contact**: Etomoxir - No known significant effects or critical hazards.
  - BPTES - No known significant effects or critical hazards.
  - UK5099 - No known significant effects or critical hazards.

- **Ingestion**: Etomoxir - Toxic if swallowed.
  - BPTES - No known significant effects or critical hazards.
  - UK5099 - No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

- **Eye contact**: Etomoxir - Adverse symptoms may include the following: irritation, redness.
  - BPTES - No specific data.
  - UK5099 - No specific data.

- **Inhalation**: Etomoxir - Adverse symptoms may include the following: respiratory tract irritation, coughing.
  - BPTES - No specific data.
  - UK5099 - No specific data.

- **Skin contact**: Etomoxir - No specific data.
  - BPTES - No specific data.
  - UK5099 - No specific data.

- **Ingestion**: Etomoxir - No specific data.
  - BPTES - No specific data.
  - UK5099 - No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure:

**Short term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

Potential chronic health effects
Section 11. Toxicological information

**General**
- **Etomoxir**: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Carcinogenicity**
- **Etomoxir**: No known significant effects or critical hazards.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Mutagenicity**
- **Etomoxir**: No known significant effects or critical hazards.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Teratogenicity**
- **Etomoxir**: No known significant effects or critical hazards.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Developmental effects**
- **Etomoxir**: No known significant effects or critical hazards.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Fertility effects**
- **Etomoxir**: No known significant effects or critical hazards.
- **BPTES**: No known significant effects or critical hazards.
- **UK5099**: No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPTES Oral</td>
<td>110120.2 mg/kg</td>
</tr>
<tr>
<td>UK5099 Oral</td>
<td>109889.8 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPTES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Acute EC50 4.74 g/L Fresh water</td>
<td>Algae - Chlamydomonas reinhardtii</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 519.6 mg/l Fresh water</td>
<td>Crustaceans - Cypris subglobosa</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 402600 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 6.87 g/L Fresh water</td>
<td>Aquatic plants - Lemma minor</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1000000 µg/l Fresh water</td>
<td>Fish - Morone saxatilis - Larvae</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic LC10 781 mg/l Fresh water</td>
<td>Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>3 weeks</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 6 g/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.314 g/L Fresh water</td>
<td>Daphnia - Daphnia pulex</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 100 mg/l Fresh water</td>
<td>Fish - Gambusia holbrooki - Adult</td>
<td>8 weeks</td>
</tr>
<tr>
<td><strong>UK5099</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Acute EC50 4.74 g/L Fresh water</td>
<td>Algae - Chlamydomonas reinhardtii</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 519.6 mg/l Fresh water</td>
<td>Crustaceans - Cypris subglobosa</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 402600 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 6.87 g/L Fresh water</td>
<td>Aquatic plants - Lemma minor</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

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Section 12. Ecological information

<table>
<thead>
<tr>
<th>Test Endpoint</th>
<th>Description</th>
<th>Species</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute LC50</td>
<td>1000000 µg/l Fresh water</td>
<td>Fish - Morone saxatilis - Larvae</td>
<td>96 hours</td>
</tr>
<tr>
<td>Chronic LC10</td>
<td>781 mg/l Fresh water</td>
<td>Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Chronic NOEC</td>
<td>6 g/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
<td>96 hours</td>
</tr>
<tr>
<td>Chronic NOEC</td>
<td>0.314 g/L Fresh water</td>
<td>Daphnia - Daphnia pulex</td>
<td>21 days</td>
</tr>
<tr>
<td>Chronic NOEC</td>
<td>100 mg/l Fresh water</td>
<td>Fish - Gambusia holbrooki - Adult</td>
<td>8 weeks</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (Koc): Not available.

12.5 Other adverse effects
No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods
Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA: Not regulated.

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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## Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available.

## Section 15. Regulatory information

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

#### U.S. Federal regulations

| Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) | Not listed |
| Clean Air Act Section 602 Class I Substances | Not listed |
| Clean Air Act Section 602 Class II Substances | Not listed |
| DEA List I Chemicals (Precursor Chemicals) | Not listed |
| DEA List II Chemicals (Essential Chemicals) | Not listed |

#### SARA 302/304

**Composition/information on ingredients**

No products were found.

**SARA 304 RQ**

: Not applicable.

**SARA 311/312**

**Classification**

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Etomoxir | 100 | COMBUSTIBLE DUSTS  
ACUTE TOXICITY (oral) - Category 3  
Not applicable. |
| BPTES | ≤3 | EYE IRRITATION - Category 2A |
| UK5099 | ≤3 | EYE IRRITATION - Category 2A |

#### SARA 311/312 Composition/information on ingredients

**Name** | **%** | **Classification**  
---|---|---
Etomoxir (R)-(+)/-2-[6-(4-Chlorophenoxy)hexyl]-oxirane-2-carboxylic acid sodium salt | 100 | COMBUSTIBLE DUSTS  
ACUTE TOXICITY (oral) - Category 3  
Not applicable. |
BPTES Sodium chloride | ≤3 | EYE IRRITATION - Category 2A |
UK5099 Sodium chloride | ≤3 | EYE IRRITATION - Category 2A |

### State regulations

- **Massachusetts**: None of the components are listed.
- **New York**: None of the components are listed.
- **New Jersey**: None of the components are listed.
- **Pennsylvania**: None of the components are listed.

### International regulations

- **Chemical Weapon Convention List Schedules I, II & III Chemicals**

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Section 15. Regulatory information

Not listed.

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Europe : Not determined.
Japan :
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Malaysia : Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Thailand : Not determined.
Turkey : Not determined.
United States : Not determined.
Viet Nam : Not determined.

Section 16. Other information

History
Date of issue : 11/20/2017
Date of previous issue : 10/27/2017.
Version : 2.2

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