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

1.1. Product identifier

Product name: FOAM SAMPLES: HI-EX, CLASS A AND OTHER FOAM'S

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

Use of substance / mixture: Mixture of Synthetic based firefighting foam concentrates classified as Hi-Ex, Class A or any other foam that is NOT an AFFF, Fluorine Free Foam or Protein based foam and diluted/produced samples for laboratory testing and evaluation. The information included on this document is only intended to cover a broad range of potential physical characteristics and properties for the many kinds of foam concentrates in circulation on the market.

1.3. Details of the supplier of the safety data sheet

Company name: Oil Techics Ltd
Lintons Business Park
Gourdon
Aberdeenshire
DD10 0NH
United Kingdom, Scotland
Tel: +44 (0) 1561 361515
Email: info@oiltechnics.com

1.4. Emergency telephone number

Emergency tel: +44 (0) 1561 361515
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: Xi: R36
Classification under CLP: Eye Dam. 1: H318
Most important adverse effects: Irritating to eyes.

2.2. Label elements

Label elements under CLP:
Hazard statements: H318: Causes serious eye damage.
Signal words: Danger
Hazard pictograms: GHS05: Corrosion
SAFETY DATA SHEET
FOAM SAMPLES: HI-EX, CLASS A AND OTHER FOAM'S

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.

Label elements under CHIP:

Hazard symbols: Irritant.

Risk phrases: R36: Irritating to eyes.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ETHYLENE GLYCOL - REACH registered number(s): 01-2119456816-28-XXXX

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>203-473-3</td>
<td>107-21-1</td>
<td>Xn: R22</td>
<td>Acute Tox. 4: H302</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

2-METHYLPENTANE-2,4-DIOL

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>203-489-0</td>
<td>107-41-5</td>
<td>Xi: R36/38</td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

C10-C16 ALKYL SULPHATE, AMMONIUM SALT

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>268-364-5</td>
<td>68081-96-9</td>
<td>Xn: R22; Xi: R38; Xi: R41</td>
<td>-</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

ALKYLPOLYGlycoside C9-11

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>603-654-0</td>
<td>132778-08-06</td>
<td>Xi: R41</td>
<td>Eye Dam. 1: H318</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

AMMONIUM ALKYL C8-10 ETHER SULFATE

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>68891-29-2</td>
<td>Xi: R38; Xi: R41</td>
<td>Acute Tox. 4: H312; Eye Irrit. 2: H319</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

2-(2-BUTOXYETHOXY)ETHANOL - REACH registered number(s): 01-2119475104-44

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>203-961-6</td>
<td>112-34-5</td>
<td>Xi: R36</td>
<td>Eye Irrit. 2: H319</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

SODIUM C14-C16 OLEFIN SULPHONATE - REACH registered number(s): 01-2119513401-57

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>270-407-8</td>
<td>68439-57-6</td>
<td>Xi: R38</td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

ALCOHOLS C10-16

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>MIXTURE</td>
<td>N: R50</td>
<td>-</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>
### SAFETY DATA SHEET

**FOAM SAMPLES: HI-EX, CLASS A AND OTHER FOAM’S**

**Page:** 3

#### Non-classified ingredients:

**WATER**

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CHIP Classification</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>7732-18-5</td>
<td>-</td>
<td>-</td>
<td>20-40%</td>
</tr>
</tbody>
</table>

**HYDROXYETHYL CELLULOSE**

| -         | 9004-62-0     | -                   | -                  | <1%     |

**AMMONIUM LAURYL ETHER SULPHATE**

| -         | 32612-48-9    | Xi: R38; Xi: R41    | -                  | <1%     |

**ETHANOL**

| 200-578-6 | 64-17-5       | F: R11              | Flam. Liq. 2: H225 | <1%     |

**SODIUM DECYL SULPHATE**

| -         | -             | Xn: R22; Xi: R38; Xi: R41 | Acute Tox. 4: H302; Aquatic Chronic 3: H412; Skin Irrit. 2: H315; Eye Dam. 1: H318 | <1%     |

**XANTHAN GUM**

| 234-394-2 | 11138-66-2    | -                   | -                  | <1%     |

**TRIETHANOLAMINE**

| 203-868-0 | 111-42-2      | Xn: R22; Xi: R38; Xi: R41; Xn: R48/22 | - | <1% |

**2-METHYLISOTHIAZOL-3(2H)-ONE**

| 220-239-6 | 2682-20-4     | Xn: R22; C: R34; T: R23; Sens.: R43; N: R50 | - | <1% |

**1,2-BENZISOTHIAZOLIN-3-ONE**

| 220-120-9 | 2634-33-5     | Xn: R22; Xi: R38; Xi: R41; Sens.: R43; N: R50 | Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318; Skin Sens. 1: H317; Aquatic Acute 1: H400 | <1% |

**Contains:** Blend of surfactants, wetting agents, solvents and polymers. No Fluorosurfactant content

### Section 4: First aid measures

#### 4.1. Description of first aid measures

- **Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

- **Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

- **Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

- **Inhalation:** Remove casualty from exposure ensuring one’s own safety whilst doing so.
4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage
SAFETY DATA SHEET
FOAM SAMPLES: HI-EX, CLASS A AND OTHER FOAM'S

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

ETHYLENE GLYCOL

<table>
<thead>
<tr>
<th>Workplace exposure limits:</th>
<th>Respirable dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>8 hour TWA</td>
</tr>
<tr>
<td>UK</td>
<td>52 mg/m³ (vapour)</td>
</tr>
</tbody>
</table>

2-METHYL-PENTANE-2,4-DIOL

| UK | 123 mg/m³ | 123 mg/m³ | - | - |

2-(2-BUTOXYETHOXY)ETHANOL

| UK | 67.5 mg/m³ | 101.2 mg/m³ | - | - |

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| State: Liquid |
| Colour: Various |
| Odour: Perceptible odour |
| Viscosity: Viscous |
| Boiling point/Range °C: >100 |
| pH: 6-8.5 | Flash point °C: >93 |
9.2. Other information

Other information: Potential for mixture of different foam concentrate types resulting in varying physical properties.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

ETHYLENE GLYCOL

<table>
<thead>
<tr>
<th></th>
<th>RAT</th>
<th>LD50</th>
<th>mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>5500</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>4700</td>
<td></td>
</tr>
</tbody>
</table>

2-METHYLPENTANE-2,4-DIOL

<table>
<thead>
<tr>
<th></th>
<th>RAT</th>
<th>LD50</th>
<th>mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>3097</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>3700</td>
<td></td>
</tr>
</tbody>
</table>

ALKYLPOLYGLYCOSIDE C9-11

<table>
<thead>
<tr>
<th></th>
<th>HMN</th>
<th>LD50</th>
<th>mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORAL</td>
<td></td>
<td>&gt;2000</td>
<td></td>
</tr>
</tbody>
</table>
2-(2-BUTOXYETHOXY)ETHANOL

<table>
<thead>
<tr>
<th>Route</th>
<th>ORL</th>
<th>MUS</th>
<th>LD50</th>
<th>6050 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ORL</td>
<td>RAT</td>
<td>LD50</td>
<td>4500 mg/kg</td>
</tr>
</tbody>
</table>

SODIUM C14-C16 OLEFIN SULPHONATE

| Route | ORAL | RAT | LD50 | >2000 mg/kg |

ALCOHOLS C10-16

| Route | ORAL | RAT | LD50 | >20 mg/kg |

Relevant effects for mixture:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Route</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritation</td>
<td>OPT</td>
<td>Hazardous: calculated</td>
</tr>
</tbody>
</table>

Symptoms / routes of exposure:

- **Skin contact:** There may be irritation and redness at the site of contact.
- **Eye contact:** There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.
- **Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.
- **Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

**ALKYLPOLYGLYCOSIDE C9-11**

| Route | 96H LC50 | 10 mg/l |

**SODIUM C14-C16 OLEFIN SULPHONATE**

<table>
<thead>
<tr>
<th>Route</th>
<th>48H EC50</th>
<th>1-10 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GREEN ALGA (Selenastrum capricornutum)</td>
<td>48H EC50</td>
<td>10-100 mg/l</td>
</tr>
<tr>
<td>MARINE ALGAE (Skeletonema costatum)</td>
<td>72H ErC50</td>
<td>1-10 mg/l</td>
</tr>
<tr>
<td>ZEBRAFISH (Brachydanio rerio)</td>
<td>96H LC50</td>
<td>12.2 mg/l</td>
</tr>
</tbody>
</table>

**ALCOHOLS C10-16**

| Route | 96H LC50 | >890 mg/l |

[cont...]
12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Section 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3:

- H225: Highly flammable liquid and vapour.
- H302: Harmful if swallowed.
- H312: Harmful in contact with skin.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H319: Causes serious eye irritation.
- H400: Very toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.
R11: Highly flammable.
R22: Harmful if swallowed.
R23: Toxic by inhalation.
R34: Causes burns.
R36/38: Irritating to eyes and skin.
R36: Irritating to eyes.
R38: Irritating to skin.
R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.
R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50: Very toxic to aquatic organisms.

Legend to abbreviations:
PNEC = predicted no effect level
DNEL = derived no effect level
LD50 = median lethal dose
LC50 = median lethal concentration
EC50 = median effective concentration
IC50 = median inhibitory concentration
dw = dry weight
bw = body weight
cc = closed cup
oc = open cup
MUS = mouse
GPG = guinea pig
RBT = rabbit
HAM = hamster
HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = physico-chemical properties

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product. Oil Technics Ltd takes no responsibility for the samples sent along with this SDS in shipment. This SDS
is intended for use only as a substitute to the SDS supplied by the foam concentrate manufacturer. If an SDS is available from the manufacturer of the foam, it should be used in place of this SDS.