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

1.1. Product identifier

Product name: DYNE TEST SOLUTIONS TYPE "A" 34-57 DYNES/cm²(mN/m)

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

Use of substance / mixture: Industrial Use

1.3. Details of the supplier of the safety data sheet

Company name: Dyne Testing Ltd
Newton House
5 Parkside Court
Greenhough Road
Lichfield
Staffordshire
WS13 7FE, UK

Tel: +44(0)1543 411460
Fax: +44(0)1543 415140
Email: sales@dynetesting.com

1.4. Emergency telephone number

Emergency tel: +44(0)1543 411460
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Rep. 1B: H360D

Most important adverse effects: May damage the unborn child.

2.2. Label elements

Label elements under CLP:

Hazard statements: H360D: May damage the unborn child.
Signal words: Danger
Hazard pictograms: GHS08: Health hazard

Precautionary statements: P202: Do not handle until all safety precautions have been read and understood.

[cont...]
SAFETY DATA SHEET
DYNE TEST SOLUTIONS TYPE "A" 34-57 DYNES/cm²(mN/m)

P501: Dispose of contents/container to hazardous or special waste collection point.
P281: Use personal protective equipment as required.
P308+313: IF exposed or concerned: Get medical advice/attention.
P405: Store locked up.

2.3. Other hazards

Other hazards: In use, may form flammable / explosive vapour-air mixture.
PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

2-ETHOXYETHANOL
EINECS | CAS | CLP Classification | Percent
--- | --- | --- | ---
203-804-1 | 110-80-5 | - | Flam. Liq. 3: H226; Repr. 1B: H360FD; Acute Tox. 4: H332; Acute Tox. 4: H312; Acute Tox. 4: H302
1 -75%

FORMAMIDE
EINECS | CAS | CLP Classification | Percent
--- | --- | --- | ---
200-842-0 | 75-12-7 | - | Repr. 1B: H360D
26-99%

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. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

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. Consult a doctor.

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 irritation and redness. The eyes may water profusely.

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

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.

[cont...]
SAFETY DATA SHEET
DYNE TEST SOLUTIONS TYPE "A" 34-57 DYNES/cm²(mN/m)

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

Immediate / special treatment: Not applicable.

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: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. 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. Alert the neighbourhood to the presence of fumes or gas.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. 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. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. 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 special requirement.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

2-ETHOXYETHANOL

### Workplace exposure limits:

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
<th>Respirable dust</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>8 mg/m³</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**FORMAMIDE**

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>37 mg/m³</td>
<td>56 mg/m³</td>
</tr>
</tbody>
</table>

**DNEL/PNEC Values**

DNEL / PNEC: No data available.

8.2. Exposure controls

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

**Respiratory protection:** Respiratory protective device with particle filter.

**Hand protection:** Impermeable gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

**Environmental:** Refer to specific Member State legislation for requirements under Community environmental legislation.

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><strong>State:</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Colour:</strong></td>
<td>Colourless</td>
</tr>
<tr>
<td><strong>Odour:</strong></td>
<td>Odourless</td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Oxidising:</strong></td>
<td>Non-oxidising (by EC criteria)</td>
</tr>
<tr>
<td><strong>Solubility in water:</strong></td>
<td>Miscible in all proportions</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Boiling point/range°C:</strong></td>
<td>135</td>
</tr>
<tr>
<td><strong>Melting point/range°C:</strong></td>
<td>-90</td>
</tr>
<tr>
<td><strong>Flammability limits %:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Flash point°C:</strong></td>
<td>60 - 93</td>
</tr>
<tr>
<td><strong>Part.coef. n-octanol/water:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Autoflammability°C:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Vapour pressure:</strong></td>
<td>5.1 hPa at 20 °C</td>
</tr>
<tr>
<td><strong>Relative density:</strong></td>
<td>0.93</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>

VOC g/l: No data available.
## 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. Hot surfaces. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Copper.

### 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:**

**2-ETHOXYETHANOL**

<table>
<thead>
<tr>
<th>Source</th>
<th>Test Species</th>
<th>LD50</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVN</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>2400  mg/kg</td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>LD50</td>
<td></td>
<td>5799  mg/kg</td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>7750  mg/kg</td>
</tr>
<tr>
<td>SCU</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>3400  mg/kg</td>
</tr>
<tr>
<td>SKN</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>3900  mg/kg</td>
</tr>
</tbody>
</table>

**FORMAMIDE**

<table>
<thead>
<tr>
<th>Source</th>
<th>Test Species</th>
<th>LD50</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>LD50</td>
<td></td>
<td>3150  mg/kg</td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>3     gm/kg</td>
</tr>
<tr>
<td>SCU</td>
<td>RAT</td>
<td>LD50</td>
<td></td>
<td>&gt;4    gm/kg</td>
</tr>
</tbody>
</table>
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Relevant effects for mixture:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Route</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (harmful)</td>
<td>INH DRM ING</td>
<td>Hazardous: calculated</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>--</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 irritation and redness. The eyes may water profusely.
Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
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.
Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

<table>
<thead>
<tr>
<th>Species</th>
<th>Test</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLUEGILL (Lepomis macrochirus)</td>
<td>96H LC50</td>
<td>&gt;10000</td>
<td>mg/l</td>
</tr>
<tr>
<td>DAPHNIA</td>
<td>48H EC50</td>
<td>1,892.52</td>
<td>mg/l</td>
</tr>
</tbody>
</table>

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.
Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.
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
Specific regulations: Not applicable.

15.2. Chemical Safety Assessment
Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.
This safety data sheet is prepared in accordance with Commission Regulation (EC) No 1272/2008.

Phrases used in s.2 and s.3:
H226: Flammable liquid and vapour.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H332: Harmful if inhaled.
H360D: May damage the unborn child.
H360FD: May damage fertility. May damage the unborn child.
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
R60: May impair fertility.
R61: May cause harm to the unborn child.

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

[cont...]
SAFETY DATA SHEET
DYNE TEST SOLUTIONS TYPE "A" 34-57 DYNES/cm²(mN/m)

HMN = human
MAM = mammal
PGN = pigeon
IVN = intravenous
SCU = subcutaneous
SKN = skin
DRM = dermal
OCC = ocular/corneal
PCP = phycico-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.