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

1.1. Product identifier

Product name: DYNE TEST SOLUTIONS TYPE "B" 22-24 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: Flam. Liq. 2: H225

Most important adverse effects: Highly flammable liquid and vapour.

2.2. Label elements

Label elements under CLP:

Hazard statements: H225: Highly flammable liquid and vapour.
Signal words: Danger
Hazard pictograms: GHS02: Flame

Precautionary statements: P243: Take precautionary measures against static discharge.
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P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P370+378: In case of fire: Use water for extinction.
P403+235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container to hazardous or special waste collection point.

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:

ETHANOL

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-578-6</td>
<td>64-17-5</td>
<td>Flam. Liq. 2: H225</td>
<td>75-100%</td>
</tr>
</tbody>
</table>

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.

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

Ingestion: 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 mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: There may be a feeling of tightness in the chest with shortness of breath.

Delayed / immediate effects: No data available.

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


5.2. Special hazards arising from the substance or mixture

Exposure hazards: Highly flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition and flash back.

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. Notify the police and fire brigade immediately. Eliminate all sources of ignition. 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: Do not use equipment in clean-up procedure which may produce sparks. Absorb into dry earth or sand. Clean-up should be dealt with only by qualified personnel familiar with the specific substance.

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: Smoking is forbidden. Use non-sparking tools. 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. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition.

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:
ETHANOL

Workplace exposure limits:

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1920 mg/m³</td>
<td>-</td>
<td>-</td>
<td>-</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. Ensure lighting and electrical equipment are not a source of ignition.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

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

Skin protection: 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

State: Liquid
Colour: Colourless
Odour: Odourless
Evaporation rate: Moderate
Oxidising: Non-oxidising (by EC criteria)
Solubility in water: Miscible in all proportions

<table>
<thead>
<tr>
<th>Boiling point/range°C</th>
<th>Melting point/range°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>-114</td>
</tr>
</tbody>
</table>

Flammability limits %: lower: 3.3 upper: 19
Flash point°C: 14 Autoflammability°C: 363
Vapour pressure: 59.5 hPa at 20 °C Relative density: 0.789

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

[cont...]
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10.1. Reactivity
Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability
Chemical stability: Stable under normal conditions. Stable at room temperature.

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

10.5. Incompatible materials
Materials to avoid: Strong oxidising agents. Alkali metals.

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:

ETHANOL

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>LD50</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IVN</td>
<td>RAT</td>
<td></td>
<td>1440</td>
<td>mg/kg</td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>LD50</td>
<td>3450</td>
<td>mg/kg</td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>LD50</td>
<td>7060</td>
<td>mg/kg</td>
</tr>
</tbody>
</table>

Toxicity values: No data available.

Symptoms / routes of exposure

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

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: There may be a feeling of tightness in the chest with shortness of breath.

Delayed / immediate effects: No data available.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity
Ecotoxicity values: No data available.

12.2. Persistence and degradability
Persistence and degradability: Biodegradable.

[cont...]
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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

14.1. UN number
UN number: UN1170

14.2. UN proper shipping name
Shipping name: ETHANOL (ETHYL ALCOHOL)

14.3. Transport hazard class(es)
Transport class: 3

14.4. Packing group
Packing group: II

14.5. Environmental hazards
Environmentally hazardous: No
Marine pollutant: No

14.6. Special precautions for user
Special precautions: No special precautions.
Tunnel code: D/E
Transport category: 2

Section 15: Regulatory information
[cont...]
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: This product is a Seveso category/named substance in Annex I of Council Directive 96/82/EC.

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: H225: Highly flammable liquid and vapour. R11: Highly flammable.

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 = phycico-chemical properties

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive
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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.