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

1.1. Product identifier

Product name: TAN TITRANT
Product code: AS-K23962-EM

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

Use of substance / mixture: Oil test reagent.

1.3. Details of the supplier of the safety data sheet

Company name: ExxonMobil
22777 Springwoods Village Parkway,
Spring,
TX 77389,
USA
Tel: 800-662-4525
Email: SDS-UK@EXXONMOBIL.COM

1.4. Emergency telephone number

Emergency tel: 703-527-3887 Chemtrec

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Flam. Liq. 2: H225; Aquatic Chronic 4: H413; Eye Irrit. 2: H319
Most important adverse effects: Highly flammable liquid and vapour. Causes serious eye irritation. May cause long lasting harmful effects to aquatic life.

2.2. Label elements

Label elements:

Hazard statements: H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H413: May cause long lasting harmful effects to aquatic life.

Signal words: Danger

Hazard pictograms: GHS02: Flame
GHS07: Exclamation mark

Precautionary statements: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
SAFETY DATA SHEET
TAN TITRANT

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish.
P501: Dispose of contents/container to in accordance with local regulations.

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:

<table>
<thead>
<tr>
<th>ETHANOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS</td>
</tr>
<tr>
<td>200-578-6</td>
</tr>
</tbody>
</table>

Non-classified ingredients:

<table>
<thead>
<tr>
<th>POTASSIUM HYDROXIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS</td>
</tr>
<tr>
<td>215-181-3</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. Transfer to hospital if there are burns or symptoms of poisoning.

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

Ingestion: Do not induce vomiting. If conscious, give half a litre of water to drink immediately. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available.

[cont...]
4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be mild irritation at the site of contact. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be irritation and pain. Corneal burns may occur.

Ingestion: There may be confusion, aggressive behaviour, slurred speech and staggering walk. Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting. Convulsions may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Absorption through the lungs can occur causing symptoms similar to those of ingestion.

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

Immediate / special treatment: No data available.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Carbon dioxide. Alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture

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

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: Eliminate all sources of ignition. 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.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Neutralise with dilute hydrochloric acid. Wash the spillage site with large amounts of water. Use industrial vacuum cleaner to remove material.

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: Ensure there is sufficient ventilation of the area. Smoking is forbidden. Earth any equipment used in handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Ensure lighting and electrical equipment are not a source of ignition.

Suitable packaging: Steel drums.

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: Respirable dust

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

Hand protection: Protective gloves.

Eye protection: Safety goggles.

Skin protection: Protective clothing with elasticated cuffs and closed neck. Boots made of PVC.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Characteristic odour

Evaporation rate: Moderate

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Miscible

[cont...]
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Also soluble in: Chloroform. Acetone. Diethyl ether.

Viscosity: Non-viscous

Boiling point/range°C: 78
Melting point/range°C: -130

Flammability limits %: lower: 3.3
upper: 19
Flash point°C: 12
Autoflammability°C: 363

Vapour pressure: 44.6mm@20°C
Relative density: 0.785

9.2. Other information

Other information: 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.

10.4. Conditions to avoid

Conditions to avoid: Sources of ignition. Heat. Flames.

10.5. Incompatible materials


10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

ETHANOL

<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>1440</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>3450</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td></td>
<td>7060</td>
<td></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. Progressive ulceration will occur if treatment is not immediate.

Eye contact: There may be irritation and pain. Corneal burns may occur.

Ingestion: There may be confusion, aggressive behaviour, slurred speech and staggering walk.

[cont...]

Page: 5
Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting. Convulsions may occur.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Absorption through the lungs can occur causing symptoms similar to those of ingestion.

### Section 12: Ecological information

<table>
<thead>
<tr>
<th>12.1. Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecotoxicity values: No data available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.2. Persistence and degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability: Biodegradable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.3. Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential: No bioaccumulation potential.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12.4. Mobility in soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility: Volatile. Soluble in water. Readily absorbed into soil.</td>
</tr>
</tbody>
</table>

### 12.5. Results of PBT and vPvB assessment

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

**Other adverse effects:** Negligible ecotoxicity.

### Section 13: Disposal considerations

<table>
<thead>
<tr>
<th>13.1. Waste treatment methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal operations: Incineration on land.</td>
</tr>
<tr>
<td>Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.</td>
</tr>
</tbody>
</table>

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

### Section 14: Transport information

<table>
<thead>
<tr>
<th>14.1. UN number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number: UN1170</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.2. UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping name: ETHANOL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.3. Transport hazard class(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport class: 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14.4. Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group: II</td>
</tr>
</tbody>
</table>

[cont...]
14.5. Environmental hazards
Environmentally hazardous: No  Marine pollutant: No

14.6. Special precautions for user
Special precautions: No special precautions.

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.

* 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.
H314: Causes severe skin burns and eye damage.
H319: Causes serious eye irritation.
H413: May cause long lasting harmful effects to aquatic life.

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.