SAFETY DATA SHEET
Tango


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

1.1. Product identifier
Product name: Tango
Product number: 032-14

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Car maintenance product. - Dressing
Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Identified uses above. For professional use only.

1.3. Details of the supplier of the safety data sheet
Supplier: Autosmart International Ltd
Lynn Lane,
Shenstone, nr Lichfield
Staffordshire, WS14 0DH
England
www.autosmartinternational.com
Tel: +44 (0) 1543 481616 (09:00 - 17:00)
Fax: +44 (0) 1543 481549 (09:00 - 17:00)
info@autosmartinternational.com

Contact person: Mr. Russell Butler

1.4. Emergency telephone number
Emergency telephone: Mob: +44 (0) 7808 971321 (24hrs)
Tel: +44 (0) 1543 481616 (09:00 - 17:00)
Fax: +44 (0) 1543 481549 (09:00 - 17:00)

If you urgently need medical help or advice but it's not a life-threatening situation, call 111 free from any phone to speak to an NHS adviser. The 24-hour NHS 111 service can give you healthcare advice or direct you to the local service that can help you best.

The NHS 111 service will also be available via the harmonised European number for medical advice 116 117

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards: Aquatic Chronic 2 - H411
Tango


2.2. Label elements

Pictogram

Signal word Warning

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains d-LIMONENE. May produce an allergic reaction.

Precautionary statements
P273 Avoid release to the environment.
P280 Wear protective gloves.
P280 Wear eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

Detergent labelling
< 5% cationic surfactants, < 5% non-ionic surfactants, < 5% perfumes, Contains D-LIMONENE, CITRAL

Supplementary precautionary statements
P264 Wash contaminated skin thoroughly after handling.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>Naphtha (petroleum), hydrodesulfurized heavy</th>
<th>5&lt;10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 64742-82-1</td>
<td></td>
</tr>
<tr>
<td>EC number: 265-185-4</td>
<td></td>
</tr>
</tbody>
</table>

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC)
Xn; R65. R10, R67
### Tango

#### 2,2’-(Octadec-9-enylimino)bisethanol 2<3%

- **CAS number:** 25307-17-9
- **EC number:** 246-807-3
- **REACH registration number:** 01-2119510876-35-XXXX
- **M factor (Acute)** = 10
- **M factor (Chronic)** = 1

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 - H302</td>
<td>Xn;R22. C;R34. N;R50.</td>
</tr>
<tr>
<td>Skin Corr. 1B - H314</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 1 - H400</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 1 - H410</td>
<td></td>
</tr>
</tbody>
</table>

#### Distillates (petroleum), hydrotreated light. 0.7<1.0%

- **CAS number:** 64742-47-8
- **EC number:** 265-149-8
- **REACH registration number:** 01-2119484819-18-XXXX

| Substance with a Community workplace exposure limit. | |

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asp. Tox. 1 - H304</td>
<td>Xn;R65. R66.</td>
</tr>
</tbody>
</table>

#### Dicocodimethylammonium chloride 0.7<1.0%

- **CAS number:** 61789-77-3
- **EC number:** 263-087-6
- **REACH registration number:** 01-2119486994-16-XXXX

| M factor (Acute) | = 1 |

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 - H302</td>
<td>Xn;R22. C;R34. N;R50.</td>
</tr>
<tr>
<td>Skin Corr. 1B - H314</td>
<td></td>
</tr>
<tr>
<td>Eye Dam. 1 - H318</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 1 - H400</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
<td></td>
</tr>
</tbody>
</table>

#### PROPAN-2-OL 0.2<0.5%

- **CAS number:** 67-63-0
- **EC number:** 200-661-7
- **REACH registration number:** 01-2119457558-25-xxxx

| Substance with a Community workplace exposure limit. | |

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2 - H225</td>
<td>F;R11 Xi;R36 R67</td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
<td></td>
</tr>
<tr>
<td>STOT SE 3 - H336</td>
<td></td>
</tr>
</tbody>
</table>
**Tango**

<table>
<thead>
<tr>
<th>d-LIMONENE</th>
<th>0.1&lt;0.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 5989-27-5</td>
<td>EC number: 227-813-5</td>
</tr>
<tr>
<td>M factor (Acute) = 1</td>
<td>M factor (Chronic) = 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
<th>Classification (67/548/EEC or 1999/45/EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 3 - H226</td>
<td>R10 R43 Xi;R38 N;R50/53</td>
</tr>
<tr>
<td>Skin Irrit. 2 - H315</td>
<td></td>
</tr>
<tr>
<td>Skin Sens. 1B - H317</td>
<td></td>
</tr>
<tr>
<td>Asp. Tox. 1 - H304</td>
<td></td>
</tr>
<tr>
<td>Aquatic Acute 1 - H400</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 1 - H410</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**SECTION 4: First aid measures**

4.1. Description of first aid measures

<table>
<thead>
<tr>
<th>General information</th>
<th>Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of 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. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Rinse with water.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.</td>
</tr>
<tr>
<td>Protection of first aiders</td>
<td>First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.</td>
</tr>
</tbody>
</table>

4.2. Most important symptoms and effects, both acute and delayed

<table>
<thead>
<tr>
<th>General information</th>
<th>See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Prolonged inhalation of high concentrations may damage respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause irritation.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Redness. Irritating to skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>May cause temporary eye irritation.</td>
</tr>
</tbody>
</table>

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

| Notes for the doctor | Treat symptomatically. |
SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards: Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products: Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

5.3. Advice for firefighters
Protective actions during firefighting: Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions: No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.

6.2. Environmental precautions
Environmental precautions: Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Tango

6.4. Reference to other sections

Reference to other sections

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Read and follow manufacturer’s recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class

Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Distillates (petroleum), hydrotreated light.

Long-term exposure limit (8-hour TWA): WEL 1000 mg/m³
Short-term exposure limit (15-minute): WEL

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³
Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit

2,2’-(Octadec-9-enylimino)bisethanol (CAS: 25307-17-9)

Ingredient comments

No exposure limits known for ingredient(s).

DNEL

Workers - Dermal; Long term systemic effects: 0.25 mg/kg/day
Workers - Inhalation; Long term systemic effects: 1.76 mg/m³
Consumer - Dermal; Long term systemic effects: 0.179 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 0.621 mg/m³
Consumer - Oral; Long term systemic effects: 0.179 mg/kg/day
Tango

**PNEC**
- Fresh water; 0.000214 mg/l
- Marine water; 0.000021 mg/l
- STP; 1.5 mg/l
- Sediment (Freshwater); 1.692 mg/kg
- Sediment (Marine water); 0.1692 mg/kg
- Soil; 5 mg/kg

**Dicocodimethylammonium chloride (CAS: 61789-77-3)**

**Ingredient comments**
No exposure limits known for ingredient(s).

**DNEL**
Professional - Dermal; Long term systemic effects: 12.75 mg/kg/day
Industry - Inhalation; Long term systemic effects: 27 mg/m³
Consumer - Dermal; Long term systemic effects: 7.65 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 8 mg/m³
Consumer - Oral; Long term systemic effects: 2.3 mg/kg/day

**PNEC**
- Fresh water; 0.013 mg/l
- Marine water; 0.0013 mg/l
- STP; 1.2
- Sediment (Freshwater); 8.8 mg/kg
- Sediment (Marine water); 0.88 mg/kg
- Soil; 7 mg/kg

**Distillates (petroleum), hydrotreated light. (CAS: 64742-47-8)**

**DNEL**
Consumer - Oral; Long term: 19 mg/kg/day

**PROPN-2-OL (CAS: 67-63-0)**

**DNEL**
Industry - Inhalation; Long term systemic effects: 500 mg/m³
Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
Consumer - Oral; Long term systemic effects: 26 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 89 mg/m³
Industry - Dermal; Long term systemic effects: 888 mg/kg/day

**PNEC**
- Fresh water; 140.9 mg/l
- Marine water; 140.9 mg/l
- Intermittent release; 140.9 mg/l
- Sediment (Freshwater); 552 mg/kg
- Sediment (Marine water); 552 mg/kg
- STP; 2251 mg/l
- Soil; 28 mg/kg

### 8.2. Exposure controls

**Protective equipment**

- Gloves
- Respirator
Tango

Appropriate engineering controls
Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection
Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures
Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

Respiratory protection
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls
Keep container tightly sealed when not in use. 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. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

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>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Orange</td>
</tr>
<tr>
<td>Odour</td>
<td>Pleasant, agreeable</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH (concentrated solution)</td>
<td>~8.1</td>
</tr>
<tr>
<td>pH (diluted solution)</td>
<td>~6.7 @ 1%</td>
</tr>
<tr>
<td>Melting point</td>
<td>~0°C</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>~100°C @</td>
</tr>
</tbody>
</table>
Tango

Flash point
> 62°C Closed cup.

Evaporation rate
Not available.

Upper/lower flammability or explosive limits
Not available.

Other flammability
This product does not sustain combustion, according to the sustained combustibility test L.2, Part III, section 32 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.

Vapour pressure
Not available.

Vapour density
Not available.

Relative density
~ 0.965 @ (20°C)°C

Solubility(ies)
Miscible with water.

Partition coefficient
Not available.

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
Not applicable.

Oxidising properties
Not applicable.

Comments
Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.

9.2. Other information
Volatile organic compound
This product contains a maximum VOC content of 79 g/litre.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stability
Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
No potentially hazardous reactions known.

10.4. Conditions to avoid
Conditions to avoid
There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials
Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Hazardous decomposition products
Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
**Tango**

<table>
<thead>
<tr>
<th><strong>Acute toxicity - oral</strong></th>
<th>Based on available data the classification criteria are not met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes (oral LD₅₀)</td>
<td>ATE oral (mg/kg)</td>
</tr>
<tr>
<td></td>
<td>25,000.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Acute toxicity - dermal</strong></th>
<th>Based on available data the classification criteria are not met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes (dermal LD₅₀)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Acute toxicity - inhalation</strong></th>
<th>Based on available data the classification criteria are not met.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes (inhalation LC₅₀)</td>
<td></td>
</tr>
</tbody>
</table>

| **Skin corrosion/irritation**   |                                                                      |
| Animal data                     |                                                                      |

| **Serious eye damage/irritation** | Causes serious eye irritation. |
|                                 |                                |

| **Respiratory sensitisation**   | Based on available data the classification criteria are not met. |
|                                |                                                                    |

| **Skin sensitisation**         | Based on available data the classification criteria are not met. |
|                                |                                                                    |

| **Germ cell mutagenicity**     | Based on available data the classification criteria are not met. |
|                                |                                                                    |

| **Genotoxicity - in vitro**   | Based on available data the classification criteria are not met. |
|                              |                                                                    |

| **Carcinogenicity**           | Based on available data the classification criteria are not met. |
|                              |                                                                    |

| **IARC carcinogenicity**      | Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans. |
|                              |                                                                    |

| **Reproductive toxicity**    | Based on available data the classification criteria are not met. |
|                              |                                                                    |

| **Reproductive toxicity - fertility** | Based on available data the classification criteria are not met. |
|                                        |                                                                    |

| **Reproductive toxicity - development** | Based on available data the classification criteria are not met. |
|                                         |                                                                    |

| **Specific target organ toxicity - single exposure** | Not classified as a specific target organ toxicant after a single exposure. |
|                                                      |                                                                      |

| **Specific target organ toxicity - repeated exposure** | Not classified as a specific target organ toxicant after repeated exposure. |
|                                                        |                                                                      |

| **Aspiration hazard** | Based on available data the classification criteria are not met. |
|                      |                                                                    |

| **General information** | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
|                        |                                                                    |

| **Inhalation**         | Prolonged inhalation of high concentrations may damage respiratory system. |
|                       |                                                                    |

| **Ingestion**          | May cause irritation.                                               |
|                       |                                                                    |

| **Skin contact**       | Redness. Irritating to skin.                                       |
|                       |                                                                    |

| **Eye contact**        | Irritating to eyes.                                                |
|                       |                                                                    |

| **Acute and chronic health hazards** | No specific long-term effects known. Prolonged or repeated exposure may cause the following adverse effects: Defatting, drying and cracking of skin. |
|                                   |                                                                    |

10/20
Tango

**Route of exposure**
Ingestion Inhalation Skin and/or eye contact

**Target organs**
No specific target organs known.

**Medical symptoms**
No specific symptoms noted, but this chemical may still have adverse health impact, either in general or on certain individuals.

**Medical considerations**
Allergies.

**Toxicological information on ingredients.**

**Naphtha (petroleum), hydrodesulfurized heavy**

**Other health effects**
There is no evidence that the product can cause cancer.

**Distillates (petroleum), hydrotreated light.**

**Acute toxicity - oral**

<table>
<thead>
<tr>
<th>Species</th>
<th>Acute toxicity oral (LD₅₀ mg/kg)</th>
<th>Species</th>
<th>Acute toxicity dermal (LD₅₀ mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat</td>
<td>5,000.0</td>
<td>Rabbit</td>
<td>2,000.0</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**

<table>
<thead>
<tr>
<th>Animal data</th>
<th>Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human skin model test</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Serious eye damage/irritation**

<table>
<thead>
<tr>
<th>Serious eye damage/irritation</th>
<th>Not irritating.</th>
</tr>
</thead>
</table>

**Respiratory sensitisation**

<table>
<thead>
<tr>
<th>Respiratory sensitisation</th>
<th>There is no evidence that the material can lead to respiratory hypersensitivity.</th>
</tr>
</thead>
</table>

**Skin sensitisation**

<table>
<thead>
<tr>
<th>Skin sensitisation</th>
<th>Buehler test: - Guinea pig: Not sensitising.</th>
</tr>
</thead>
</table>

**Germ cell mutagenicity**

<table>
<thead>
<tr>
<th>Genotoxicity - in vitro</th>
<th>Negative. This substance has no evidence of mutagenic properties.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genotoxicity - in vivo</td>
<td>Negative. This substance has no evidence of mutagenic properties.</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Carcinogenicity</th>
<th>There is no evidence that the product can cause cancer.</th>
</tr>
</thead>
</table>

**Specific target organ toxicity - repeated exposure**

<table>
<thead>
<tr>
<th>STOT - repeated exposure</th>
<th>NOAEL 750 mg/kg, Oral, Rat</th>
</tr>
</thead>
</table>

**Inhalation**
No specific health hazards known.
**Tango**

**Ingestion**
Harmful: may cause lung damage if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

**Skin contact**
No specific health hazards known.

**Eye contact**
No specific health hazards known.

**Medical symptoms**
Skin irritation.

**Dicocodimethylammonium chloride**

**Other health effects**
There is no evidence that the product can cause cancer.

**PROPAN-2-OL**

**Acute toxicity - oral**

<table>
<thead>
<tr>
<th>Acute toxicity oral (LD₅₀ mg/kg)</th>
<th>5,840.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
</tbody>
</table>

**Acute toxicity - dermal**

<table>
<thead>
<tr>
<th>Acute toxicity dermal (LD₅₀ mg/kg)</th>
<th>16.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>

**Respiratory sensitisation**
Not sensitising.

**Skin sensitisation**
Not sensitising.

**Carcinogenicity**
IARC carcinogenicity
IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**Inhalation**
Drowsiness, dizziness, disorientation, vertigo.

**Ingestion**
No specific health hazards known.

**Skin contact**
No specific health hazards known.

**Eye contact**
Irritating to eyes.

**d-LIMONENE**

**Carcinogenicity**
IARC carcinogenicity
IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**Skin contact**
The product contains a small amount of sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

**SECTION 12: Ecological Information**

**Ecotoxicity**
The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Tango

**Ecological information on ingredients.**

**Naphtha (petroleum), hydrosulfurized heavy**

**Ecotoxicity**

The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**2,2’-(Octadec-9-enylimino)bisethanol**

**Ecotoxicity**

The product contains a substance which is very toxic to aquatic organisms.

**Distillates (petroleum), hydrotreated light.**

**Ecotoxicity**

The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

**PROPAN-2-OL**

**Ecotoxicity**

The product is not expected to be hazardous to the environment.

12.1. Toxicity

**Toxicity**

Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

**Acute aquatic toxicity**

**Acute toxicity - fish**

Not determined.

**Acute toxicity - aquatic invertebrates**

Not determined.

**Acute toxicity - aquatic plants**

Not determined.

**Acute toxicity - microorganisms**

Not determined.

**Acute toxicity - terrestrial**

Not determined.

**Ecological information on ingredients.**

**2,2’-(Octadec-9-enylimino)bisethanol**

**Acute aquatic toxicity**

LE(C)₅₀ 0.01 < L(E)C50 ≤ 0.1

M factor (Acute) 10

Acute toxicity - fish LC₅₀, 96 hours: 0.39 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.1 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 0.01-0.1 mg/l, Algae

**Chronic aquatic toxicity**

M factor (Chronic) 1

**Distillates (petroleum), hydrotreated light.**

**Acute aquatic toxicity**

Acute toxicity - fish LC₅₀, 96 hours: > 2-5 mg/l, Fish
Tango

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: 1.4 mg/l, Daphnia magna

Acute toxicity - aquatic plants
IC₅₀, 72 hours: 1-3 mg/l, Algae

**Dicocodimethylammonium chloride**

Acute aquatic toxicity
LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1
M factor (Acute) 1

Acute toxicity - fish
LC₅₀, 96 hours: ~ 0.195 mg/l, Fish

Acute toxicity - aquatic invertebrates
EC₅₀, 48 hours: > 0.01-0.1 mg/l, Daphnia magna

**PROPAN-2-OL**

Acute aquatic toxicity

Acute toxicity - fish
LC₅₀, 96 hours: ~ 9640 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates
EC₅₀, >: > 1000 mg/l, Daphnia magna

Acute toxicity - aquatic plants
EC₅₀, 72 hours: > 1000 mg/l, Scenedesmus subspicatus

Acute toxicity - microorganisms
EC₅₀, >: > 1000 mg/l, Activated sludge

**d-LIMONENE**

Acute aquatic toxicity
LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1
M factor (Acute) 1

Chronic aquatic toxicity
NOEC 0.01 < NOEC ≤ 0.1

Degradability Non-rapidly degradable
M factor (Chronic) 1

12.2. Persistence and degradability

The degradability of the product is not known.

**Ecological information on ingredients.**

**Naphtha (petroleum), hydrodesulfurized heavy**

Persistence and degradability Volatile substances are degraded in the atmosphere within a few days.

**2,2’-(Octadec-9-enylimino)bisethanol**
Tango

Persistence and degradability
The product is readily biodegradable.

**Dicocodimethylammonium chloride**

Persistence and degradability
The product is biodegradable.

**PROPN-2-OL**

Persistence and degradability
The product is expected to be biodegradable.

Biodegradation
Degradation (%)
- 95: 21 days

Biological oxygen demand
~ 1171 g O₂/g substance

Chemical oxygen demand
~ 2294 g O₂/g substance

**d-LIMONENE**

Persistence and degradability
Volatile substances are degraded in the atmosphere within a few days.

12.3. Bioaccumulative potential

Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Not available.

Ecological information on ingredients.

**Naphtha (petroleum), hydrodesulfurized heavy**

Bioaccumulative potential
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**2,2'-(Octadec-9-enylimino)bisethanol**

Bioaccumulative potential
No data available on bioaccumulation.

**Distillates (petroleum), hydrotreated light**

Bioaccumulative potential
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**Dicocodimethylammonium chloride**

Bioaccumulative potential
The product does not contain any substances expected to be bioaccumulating.

**PROPN-2-OL**

Bioaccumulative potential
The product is not bioaccumulating.

Partition coefficient
log Pow: 0.05

**d-LIMONENE**
Tango

Bioaccumulative potential The product contains potentially bioaccumulating substances.

12.4. Mobility in soil
Mobility The product is water-soluble and may spread in water systems. The product is non-volatile.

Ecological information on ingredients.

Naphtha (petroleum), hydrodesulfurized heavy
Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Distillates (petroleum), hydrotreated light
Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is insoluble in water and will spread on the water surface.

Henry's law constant Not available.

Dicocodimethylammonium chloride
Mobility The product is soluble in water.

PROPAN-2-OL
Mobility The product is soluble in water.

Adsorption/desorption coefficient Water - Koc: ~ 1.1 @ °C

Henry's law constant 0.00000338 atm m3/mol @ 25°C
d-LIMONENE
Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

Distillates (petroleum), hydrotreated light
Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

PROPAN-2-OL
Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects
Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Tango

**General information**

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

### SECTION 14: Transport information

**General**

For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

UN No. (ADR/RID) 3082
UN No. (IMDG) 3082
UN No. (ICAO) 3082

14.2. UN proper shipping name

| Proper shipping name (ADR/RID) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY) |
| Proper shipping name (IMDG) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY) |
| Proper shipping name (ICAO) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY) |
| Proper shipping name (ADN) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY) |

14.3. Transport hazard class(es)

| ADR/RID class | 9 |
| ADR/RID label | 9 |
| IMDG class | 9 |
| ICAO class/division | 9 |

**Transport labels**

14.4. Packing group

| ADR/RID packing group | III |
| IMDG packing group | III |
| ICAO packing group | III |
Tango

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
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.

EmS F-A, S-F
Emergency Action Code •3Z
Hazard Identification Number 90 (ADR/RID)
Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

SECTION 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

EU legislation

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

Inventories
EU - EINECS/ELINCS
All the ingredients are listed or exempt.

SECTION 16: Other information
Tango

**Abbreviations and acronyms used in the safety data sheet**
- **ADR**: European Agreement concerning the International Carriage of Dangerous Goods by Road.
- **ADN**: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- **RID**: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- **IATA**: International Air Transport Association.
- **ICAO**: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
- **IMDG**: International Maritime Dangerous Goods.
- **CAS**: Chemical Abstracts Service.
- **ATE**: Acute Toxicity Estimate.
- **LC₅₀**: Lethal Concentration to 50% of a test population.
- **LD₅₀**: Lethal Dose to 50% of a test population (Median Lethal Dose).
- **EC₅₀**: 50% of maximal Effective Concentration.
- **PBT**: Persistent, Bioaccumulative and Toxic substance.
- **vPvB**: Very Persistent and Very Bioaccumulative.

**Classification abbreviations and acronyms**
- **Eye Irrit.** = Eye irritation
- **Skin Irrit.** = Skin irritation
- **Aquatic Chronic** = Hazardous to the aquatic environment (chronic)

**General information**
This product has been manufactured under ISO 9001 and ISO 14001 Quality and Environmental Management Systems.

**Classification procedures according to Regulation (EC) 1272/2008**
- **Skin Irrit. 2 - H315**: Eye Irrit. 2 - H319: Calculation method. Aquatic Chronic 2 - H411: Calculation method.

**Training advice**
Read and follow manufacturer's recommendations. Only trained personnel should use this material.

**Revision comments**
NOTE: Lines within the margin indicate significant changes from the previous revision.

**Issued by**
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**Revision date**
12/07/2018

**Revision**
15

**Supersedes date**
19/02/2018

**SDS number**
10050

**SDS status**
Approved.
Tango

**Risk phrases in full**

- R10 Flammable.
- R11 Highly flammable.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R43 May cause sensitisation by skin contact.
- R50 Very toxic to aquatic organisms.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

**Hazard statements in full**

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
- EUH208 Contains d-LIMONENE. May produce an allergic reaction.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.