



## SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

#### 1.1. Product identifier

**Product name** Astral Spray Clean N Shine  
**Chemical name**  
**Product number** AST-SCS

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

**Identified uses** Car maintenance product. - Dressing  
**Uses advised against** For professional use only. This product is not recommended for any industrial, professional or consumer use other than the Identified uses above.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** Astral CSL  
 Pilkingtons Industrial Estate  
 Rake Lane  
 Swinton M27 8LP  
**Contact person** R. Murie  
**Manufacturer**

#### 1.4. Emergency telephonenumber

**Emergency** sales@astralcsl.co.uk 0161 643 0260

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.

If NHS 111 does not yet cover your area, you can call NHS Direct in England or Wales on 08 45 46 47\* or NHS 24 in Scotland on 0845 24 24 24\* (UK Only) The NHS 111 service will also be available via the harmonised European number for medical advice 116 117

\* Calls to 084 numbers are charged at a higher rate than standard calls on BT's most popular call plan (BT Unlimited Weekend). Mobile and other providers costs will vary and you should check the costs of calls with your provider

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

##### **Physical hazards**

Not Classified

##### **Health hazards**

Skin Irrit. 2 - H315 Elicitation - EUH208

##### **Environmental hazards**

Aquatic Chronic 2 - H411

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**Classification (67/548/EEC or 1999/45/EC)**

R52/53.

**2.2. Label elements****Pictogram****Signal word**

Warning

**Hazard statements**

EUH208 Contains d-LIMONENE. May produce an allergic reaction.

H315 Causes skin irritation.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P273 Avoid release to the environment.

P280 Wear protective gloves.

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**

&lt; 5% cationic surfactants, &lt; 5% non-ionic surfactants, &lt; 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**

<b>Naphtha (petroleum), hydrodesulfurized heavy</b>		<b>5-10%</b>
<b>CAS number:</b> 64742-82-1 <b>EC number:</b> 265-185-4		
<b>Classification</b> Flam. Liq. 3 - H226 R10, R67. STOT SE 3 - H336 Aquatic Chronic 2 - H411	<b>Classification (67/548/EEC or 1999/45/EC)</b> N; R51/53.	
<b>2,2'-(Octadec-9-enylimino)bisethanol</b>		<b>2-5%</b>
<b>CAS number:</b> 25307-17-9 <b>EC number:</b> 246-807-3 <b>REACH registration number:</b> 01-2119510876-35-XXXX <b>M factor (Acute) = 10 M factor (Chronic) = 1</b>		
<b>Classification</b> Acute Tox. 4 - H302 N; R50. Skin Corr. 1B - H314 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn; R22. C; R34.	

<b>Distillates (petroleum), hydrotreated light.</b>		<b>0.7-1.0%</b>
<b>CAS number:</b> 64742-47-8 <b>EC number:</b> 265-149-8 <b>REACH registration number:</b> 01-2119484819-18-XXXX Substance with a Community workplace exposure limit.		
<b>Classification</b> Asp. Tox. 1 - H304	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R65. R66.	
<b>PROPAN-2-OL</b>		<b>0.2-0.5%</b>
<b>CAS number:</b> 67-63-0 <b>EC number:</b> 200-661-7 <b>REACH registration number:</b> 01-2119457558-25-xxxx Substance with a Community workplace exposure limit.		
<b>Classification</b> Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	<b>Classification (67/548/EEC or 1999/45/EC)</b> F;R11 Xi;R36 R67	
<b>d-LIMONENE</b>		<b>0.1-0.2%</b>
<b>CAS number:</b> 5989-27-5 <b>EC number:</b> 227-813-5 <b>M factor (Acute) = 1</b>		
<b>Classification</b> Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	<b>Classification (67/548/EEC or 1999/45/EC)</b> R10 R43 Xi;R38 N;R50/53	

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

#### Inhalation

Move affected person to fresh air at once. Get medical attention if any discomfort continues.

#### Ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention. 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. Do not induce vomiting.

#### Skin contact

Wash skin thoroughly with soap and water. Use suitable lotion to moisturise skin. Get medical attention if any discomfort continues.

#### Eye contact

Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

#### General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

#### Inhalation

Vapours may cause headache, fatigue, dizziness and nausea.

#### Ingestion

May cause stomach pain or vomiting.

**Skin contact**

Prolonged skin contact may cause redness and irritation.

**Eye contact**

May cause temporary eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed****Notes for the doctor**

No specific recommendations. If in doubt, get medical attention promptly.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

**5.2. Special hazards arising from the substance or mixture****Specific hazards**

Oxides of the following substances: Carbon. No unusual fire or explosion hazards noted.

**Hazardous combustion products**

Oxides of carbon. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m<sup>3</sup>.

**5.3. Advice for firefighters****Protective actions during firefighting**

No specific firefighting precautions known. Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters**

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

For personal protection, see Section 8.

**6.2. Environmental precautions****Environmental precautions**

Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

**6.3. Methods and material for containment and cleaning up****Methods for cleaning up**

Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Take care as floors and other surfaces may become slippery. Flush contaminated area with plenty of water. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer.

**6.4. Reference to other sections****Reference to other sections**

For personal protection, see Section 8. For waste disposal, see Section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Usage precautions**

Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapours. During application and drying, solvent vapours will be emitted. Good personal hygiene procedures should be implemented.

**7.2. Conditions for safe storage, including any incompatibilities****Storage precautions**

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep above the chemical's freezing point to avoid rupturing the container.

**Storage class**

Chemical 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/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL

##### **PROPAN-2-OL**

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

#### **2,2'-(Octadec-9-enylimino)bisethanol(CAS:25307-17-9)**

##### **Ingredient comments**

No exposure limits known for ingredient(s).

<b>DNEL</b>	Workers - Dermal; Long term systemic effects: 0.25 mg/kg/day
	Workers - Inhalation; Long term systemic effects: 1.76 mg/m <sup>3</sup>
	Consumer - Dermal; Long term systemic effects: 0.179 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 0.621 mg/m <sup>3</sup>
	Consumer - Oral; Long term systemic effects: 0.179 mg/kg/day
<b>PNEC</b>	- Fresh water; 0.000214 mg/l
	- Marine water; 0.000021 mg/l
	- STP; 1.5 mg/l
	- Sediment (Freshwater); 1.692 mg/kg
	- Sediment (Marinewater); 0.1692 mg/kg
	- Soil; 5 mg/kg

#### **Dicocodimethylammoniumchloride(CAS:61789-77-3)**

##### **Ingredient comments**

No exposure limits known for ingredient(s)

<b>DNEL</b>	<b><u>Distillates(petroleum),hydrotreatedlight.(CAS:64742-47-8)</u></b>
	Consumer - Oral; Long term : 19 mg/kg/day
<b>DNEL</b>	<b><u>PROPAN-2-OL(CAS:67-63-0)</u></b>
	Industry - Inhalation; Long term systemic effects: 500 mg/m <sup>3</sup>
	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/m <sup>3</sup>
<b>PNEC</b>	Industry - Dermal; Long term systemic effects: 888 mg/kg/day
	- Fresh water; 140.9 mg/l
	- Marine water; 140.9 mg/l
	- Intermittent release; 140.9 mg/l
	- Sediment (Freshwater); 552 mg/kg
	- Sediment (Marinewater); 552 mg/kg
	- STP; 2251 mg/l
	- Soil; 28 mg/kg

### **8.2. Exposure controls**

#### **Protective equipment**



### Appropriate engineering controls

No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). 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.

### Other skin and body protection

Provide eyewash station.

### Hygiene measures

Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

### Respiratory protection

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Liquid.

#### Colour

Orange.

#### Odour

Pleasant, agreeable.

#### Odour threshold

Not available. Not available.

#### pH

pH (concentrated solution): ~ 8.1 pH (diluted solution): ~ 6.7 @ 1%

#### Melting point

~0°C

#### Initial boiling point and range

~100°C @

#### Flash point

> 62°C CC (Closed cup).

#### Evaporation rate

Not available.

#### Upper/lower flammability or explosive limits

Not available. : :

#### 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**

There are no known reactivity hazards associated with this product.

**10.2. Chemical stability****Stability**

No particular stability concerns. Stable at normal ambient temperatures and when used as recommended.

**10.3. Possibility of hazardous reactions**

Not applicable. Will not polymerise.

**10.4. Conditions to avoid**

Avoid excessive heat for prolonged periods of time.

**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**

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Other health effects**

There is no evidence that the product can cause cancer.

**Acute toxicity - oral****ATE oral (mg/kg)**

25,000.0

**General information**

This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

**Inhalation**

Vapours may cause headache, fatigue, dizziness and nausea.

**Ingestion**

May cause stomach pain or vomiting. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

**Skin contact**

May cause defatting of the skin but is not an irritant. The product contains a small amount of sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

**Eye contact**

No specific health hazards known. Vapour or spray in the eyes may cause irritation and smarting.

**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.

**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).hydrotreatedlight.****Acutetoxicity-oral****Acute toxicity oral (LD50 mg/kg)**

5,000

**Species**

Rat

**Acutetoxicity-dermal****Acute toxicity dermal (LD50 mg/kg)**

2000

**Species**

Rabbit

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

Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating.

**Human skin model test**

Not available.

**Serious eye damage/irritation**

Not irritating.

**Respiratory sensitisation**

There is no evidence that the material can lead to respiratory hypersensitivity.

**Skin sensitisation**

Buehler test: - Guinea pig: Not sensitising.

**Germ cell mutagenicity****Genotoxicity - in vitro**

: Negative. This substance has no evidence of mutagenic properties.

**Genotoxicity - in vivo**

: Negative. This substance has no evidence of mutagenic properties.

**Carcinogenicity**

There is no evidence that the product can cause cancer.

**Specific target organ toxicity-repeated exposure****STOT - repeated exposure**

NOAEL 750 mg/kg, Oral, Rat

**Inhalation**

No specific health hazards known.

**Ingestion**

Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

**Skin contact**

No specific health hazards known. Not a skin sensitiser.

**Eye contact**

No specific health hazards known.

**Medical symptoms**

Skin irritation.

**PROPAN-2-OL****Other health effects**

There is no evidence that the product can cause cancer. IARC Not Listed. NTP Not Listed. OSHA Not Regulated.

**Acutetoxicity-oral****Acute toxicity oral (LD50 mg/kg)**

5,840

**Species**

Rat

**Acutetoxicity-dermal****Acute toxicity dermal (LD50 mg/kg)**

16.4

**Species**

Rabbit

**Respiratorysensitisation**

Not sensitising.

**Skinsensitisation**

Not sensitising.

**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****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.

**Ecologicalinformationoningredients.****Naphtha(petroleum).hydrodesulfurizedheavy****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).hydrotreatedlight.****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**

**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)<sub>00</sub>**0.1 < L(E)C<sub>50</sub> ≤ 1 0.01 < L(E)C<sub>50</sub> ≤ 0.1**M factor (Acute)**

10

**Acute toxicity - fish**LC<sub>50</sub> 5 , 96 hours: 0.39 mg/l, Fish**Acute toxicity - aquatic invertebrates**EC<sub>50</sub> 5 , 48 hours: 0.1 mg/l, Daphnia magna**Acute toxicity - aquatic plants**IC<sub>50</sub> 5 , 72 hours: 0.01-0.1 mg/l, Algae**Chronic aquatic toxicity****M factor (Chronic)**

1

**Dicocodimethylammoniumchloride****Acute aquatic toxicity****LE(C)<sub>00</sub>**0.1 < L(E)C<sub>50</sub> ≤ 1 0.1 < L(E)C<sub>50</sub> ≤ 1**M factor (Acute)**

1

**Acute toxicity - fish**LC<sub>50</sub> 5 , 96 hours: 0.195 mg/l, Fish**Acute toxicity - aquatic invertebrates**EC<sub>50</sub> 5 , 48 hours: 0.01-0.1 mg/l, Daphnia magna**Distillates (petroleum), hydrotreated light.****Acute toxicity - fish**LC<sub>50</sub> 5 , 96 hours: > 2-5 mg/l, Fish**Acute toxicity - aquatic invertebrates**EC<sub>50</sub> 5 , 48 hours: 1.4 mg/l, Daphnia magna**Acute toxicity - aquatic plants**IC<sub>50</sub> 5 , 72 hours: 1-3 mg/l, Algae**PROPAN-2-OL****Acute toxicity - fish**LC<sub>50</sub>, 96 hours: ~ 9640 mg/l, Pimephales promelas (Fat-head Minnow)**Acute toxicity - aquatic invertebrates**EC<sub>50</sub> 5 , >: > 1000 mg/l, Daphnia magna**Acute toxicity - aquatic plants**EC<sub>50</sub> 5 , 72 hours: > 1000 mg/l, Scenedesmus subspicatus**Acute toxicity - microorganisms**EC<sub>50</sub> 5 , >: > 1000 mg/l, Activated sludge

**d-LIMONENE****Acuteaquatictoxicity****LE(C)<sub>00</sub>** $0.1 < L(E)C50 \leq 1 \quad 0.1 < L(E)C50$  $\leq$ 

1

**M factor (Acute)**

1

**Chronicaquatictoxicity****NOEC** $0.01 < NOEC \leq 0.1$ **Degradability**

Rapidly degradable

**12.2.Persistenceanddegradability****Persistence and degradability**

The product is biodegradable but it must not be discharged into drains without permission from the authorities.

**Ecologicalinformationoningredients.****Naphtha(petroleum),hydrodesulfurizedheavy****Persistence and degradability**

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

**2,2'-(Octadec-9-enylimino)bisethanol****Persistence and degradability**

The product is readily biodegradable.

**Dicocodimethylammoniumchloride****Persistence and degradability**

The product is biodegradable.

**Distillates(petroleum),hydrotreatedlight.****Persistence and degradability**

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

**PROPAN-2-OL****Persistence and degradability**

The product is expected to be biodegradable.

**Biodegradation**

Degradation (%) - 95: 21 days

**Biological oxygen demand**

~ 1171 g O<sub>2</sub>/g substance

**Chemical oxygen demand**

~ 2294 g O<sub>2</sub>/g substance

**d-LIMONENE****Persistence and degradability**

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

**12.3.Bioaccumulativepotential**

The product contains potentially bioaccumulating substances.

**Partition coefficient**

Not available.

**Ecological information on ingredients.****Naphtha(petroleum).hydrodesulfurizedheavy**

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

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

No data available on bioaccumulation.

**Dicocodimethylammoniumchloride**

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

**Distillates(petroleum).hydrotreatedlight.**

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

**PROPAN-2-OL**

The product is not bioaccumulating.

**Partition coefficient**

log Pow: 0.05

**d-LIMONENE**

The product contains potentially bioaccumulating substances.

**12.4.Mobility in soil****Mobility**

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product contains substances which are water-soluble and may spread in water systems.

**Ecological information on ingredients.****Naphtha(petroleum).hydrodesulfurizedheavy****Mobility**

The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

**Dicocodimethylammoniumchloride****Mobility**

The product is soluble in water.

**Distillates(petroleum).hydrotreatedlight.****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.

**PROPAN-2-OL****Mobility**

The product is soluble in water.

**Adsorption/desorption coefficient**

Soil - K<sub>oc</sub>: ~ 1.1 @ °C

**Henry's law constant**

0.00000338 atm m<sup>3</sup>/mol @ 25°C

**d-LIMONENE****Mobility**

The product is insoluble in water.

**12.5.Result 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.**

This substance is not classified as PBT or vPvB according to current EU criteria.

**PROPAN-2-OL**

This substance is not classified as PBT or vPvB according to current EU criteria.

**12.6. Other adverse effects**

Not applicable.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****General information**

The packaging must be empty (drop-free when inverted).

**Disposal methods**

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.  
Packaging: Reuse or recycle products wherever possible.

**SECTION 14: Transport information****14.1. UN number**

<b>UN No. (ADR/RID)</b>	3082
<b>UN No. (IMDG)</b>	3082
<b>UN No. (ICAO)</b>	3082

**14.2. UN proper shipping name**

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

**14.3. Transport hazard class(es)**

<b>ADR/RID class</b>	9
<b>ADR/RID subsidiary risk</b>	
<b>ADR/RID label</b>	9
<b>IMDG class</b>	9
<b>IMDG subsidiary risk</b>	
<b>ICAO class/division</b>	9
<b>ICAO subsidiary risk</b>	
<b>Transport labels</b>	

**14.4. Packing group**

<b>ADR/RID packing group</b>	III
<b>IMDG packing group</b>	III
<b>ICAO packing group</b>	III

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant



Yes.

#### **14.6. Special precautions for user**

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

#### **14.7. 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/legislations specific for the substance or mixture**

##### **National regulations**

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

##### **EU legislation**

Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

##### **Guidance**

Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

##### **Health and environmental listings**

Regulation (EC) 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals (as amended).

##### **Water hazard classification**

WGK 2

#### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

### **SECTION 16: Other information**

#### **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**

EUH208 Contains d-LIMONENE. May produce an allergic reaction. 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.  
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.

**Disclaimer**

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.