

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.08.2014

Version number 2

Revision: 12.08.2014

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

1.1 Product identifier

Trade name: **Liquid Dirt Remover**

Article number: PK.10.17

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

No further relevant information available.

Application of the substance / the mixture

Degreaser

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Putoline Oil
Dollegoorweg 15
NL-7602 EC ALMELO
Tel.: +31 (0)546 818165

Further information obtainable from:

Product safety department - vib@putoline.com

1.4 Emergency telephone number:

+31 (0)546 818165 (9 AM to 4 PM, Monday to Friday)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.



Xi; Irritant

R38: Irritating to skin.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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• **Code letter and hazard designation of product:**



Xn Harmful
N Dangerous for the environment

• **Hazard-determining components of labelling:**

Kerosine (petroleum), hydrodesulfurized

• **Risk phrases:**

38 Irritating to skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.

• **Safety phrases:**

2 Keep out of the reach of children.
13 Keep away from food, drink and animal feedingstuffs.
23 Do not breathe vapour/spray.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.

• **2.3 Other hazards**

• **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

• **3.2 Mixtures**

• **Dangerous components:**

CAS: 64742-81-0 EINECS: 265-184-9	Kerosine (petroleum), hydrodesulfurized Xn R65; Xi R38; N R51/53 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315	50-100%
CAS: 26635-93-8 NLP: 500-048-7	Ethoxylated Oleylamine Xn R22; Xi R38-41; N R50 Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302; Skin Irrit. 2, H315	1-2.5%

• **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

aromatic hydrocarbons	≥ 30%
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• **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

• **4.1 Description of first aid measures**

• **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
• **After skin contact:** Generally the product does not irritate the skin.
• **After eye contact:** Rinse opened eye for several minutes under running water.
• **After swallowing:** Do not induce vomiting; call for medical help immediately.

• **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed**

If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

• **5.1 Extinguishing media**

• **Suitable extinguishing agents:** CO₂, dry chemical, or foam. Water can be used to cool and protect exposed material.

• **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

• **5.3 Advice for firefighters**

• **Protective equipment:** Wear self-contained respiratory protective device.
Wear fully protective suit.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
 Inform respective authorities in case of seepage into water course or sewage system.
 Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.
 Remove from the water surface (e.g. skim or suck off).
- **6.4 Reference to other sections** See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the skin.
 Avoid contact with the eyes and skin.
- **Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**  Wear gloves for the protection against chemicals according to EN 374.
- **Material of gloves** The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material** For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise

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that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.

Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

Goggles recommended during refilling

- Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• General Information

• Appearance:

Form:	Liquid
Colour:	Green
Odour:	Characteristic

• Change in condition

Boiling point/Boiling range:	> 100 °C
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• Flash point:

63 °C

• Flammability (solid, gaseous):

Not applicable.

• Self-igniting:

Product is not selfigniting.

• Danger of explosion:

Product does not present an explosion hazard.

• Explosion limits:

Lower:

Not determined.

Upper:

Not determined.

• Vapour pressure at 20 °C:

5 hPa

• Density at 20 °C:

0.81 g/cm³

• Solubility in / Miscibility with water:

Not miscible or difficult to mix.

• Partition coefficient (n-octanol/water):

Not determined.

• Viscosity:

Dynamic at 20 °C:

10 mPas

• Solvent content:

Organic solvents:

0.0 %

• 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

• 10.3 Possibility of hazardous reactions

Reacts with strong oxidizing agents.

• 10.4 Conditions to avoid

No further relevant information available.

• 10.5 Incompatible materials:

No further relevant information available.

• 10.6 Hazardous decomposition products:

No dangerous decomposition products known.

SECTION 11: Toxicological information

• 11.1 Information on toxicological effects

• Acute toxicity:

• Primary irritant effect:

• on the skin:

Irritant to skin and mucous membranes.

• on the eye:

No irritating effect.

• Sensitization:

No sensitizing effects known.

• Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

SECTION 12: Ecological information

• 12.1 Toxicity

• Aquatic toxicity:

No further relevant information available.

• 12.2 Persistence and degradability

No further relevant information available.

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- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:** Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

• 14.1 UN-Number	
• ADR, IMDG, IATA	UN3082
• 14.2 UN proper shipping name	
• ADR	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kerosine (petroleum), hydrodesulfurized)
• IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kerosine (petroleum), hydrodesulfurized, Ethoxylated Oleylamine), MARINE POLLUTANT
• IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kerosine (petroleum), hydrodesulfurized)
• 14.3 Transport hazard class(es)	
• ADR, IMDG, IATA	
	
• Class	9 Miscellaneous dangerous substances and articles.
• Label	9
• 14.4 Packing group	
• ADR, IMDG, IATA	III
• 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Ethoxylated Oleylamine, Kerosine (petroleum), hydrodesulfurized
• Marine pollutant:	Yes
• Special marking (ADR):	Symbol (fish and tree)
• Special marking (IATA):	Symbol (fish and tree)
• 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
• Danger code (Kemler):	90
• EMS Number:	F-A,S-F
• 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
• Transport/Additional information:	
• ADR	
• Limited quantities (LQ)	5L
• Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
• Transport category	3

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• Tunnel restriction code	E
• IMDG	
• Limited quantities (LQ)	5L
• Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
• UN "Model Regulation":	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kerosine (petroleum), hydrodesulfurized), 9, III

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

• National regulations:

• Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H400 Very toxic to aquatic life.
 - H411 Toxic to aquatic life with long lasting effects.
 - R22 Harmful if swallowed.
 - R38 Irritating to skin.
 - R41 Risk of serious damage to eyes.
 - R50 Very toxic to aquatic organisms.
 - R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R65 Harmful: may cause lung damage if swallowed.
- Department issuing MSDS: Product safety department.
- Contact: Product safety department
- Abbreviations and acronyms:
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - Flam. Liq. 3: Flammable liquids, Hazard Category 3
 - Acute Tox. 4: Acute toxicity, Hazard Category 4
 - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 - Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 - Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 - Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 - Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
 - Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Sources
 - 67/548/EEC
 - 99/45/EEC
 - EC/453-2010

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Version: 15

Revision: 16.04.2014

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

1.1 Product identifier

· **Trade name:** **TWIN AIR MP CONTACT CLEAN 500 ml**

· **Article number:** 11-00000-1817

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

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

· **Sector of Use**
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
 SU21 Consumer uses: Private households / general public / consumers

· **Product category** PC35 Washing and cleaning products (including solvent based products)

· **Process category** PROC11 Non industrial spraying

· **Application of the substance / the mixture** Cleaner solvent

1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

Mobacc/Pharmaspray/Eurofill

9640 AH Veendam

The Netherlands

Tel: +31(0)598 626666

Fax: +31(0)598 625976

E-mail: j.sleumer@mobacc.com

· **Further information obtainable from:** Research & Development/E-mail: j.sleumer@mobacc.com

· **1.4 Emergency telephone number:** During normal opening hours: Tel: +31(0)598 626666

2 Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36: Irritating to eyes.



F+; Extremely flammable

R12: Extremely flammable.

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N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurized container.

Has a narcotizing effect.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Naphtha (petroleum), hydrotreated light

Pentane

propan-2-ol

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P273 Avoid release to the environment.

P271 Use only outdoors or in a well-ventilated area.

P261 Avoid breathing mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P331 Do NOT induce vomiting.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P403 Store in a well-ventilated place.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

EUH066 Repeated exposure may cause skin dryness or cracking.

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- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· 3.1 Substances

· Additional information:

CAS: 64742-49-0 EC number: 920-750-0 Reg.nr.: 01-2119473851-33	Naphtha (petroleum), hydrotreated light Xn R65; F R11; N R51/53 R66-67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	25-<50%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol Xi R36; F R11 R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	25-<50%
CAS: 109-66-0 EINECS: 203-692-4 Reg.nr.: 01-2119459286-30	Pentane Xn R65; F+ R12; N R51/53 R66-67 Flam. Liq. 1, H224; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	10-<25%
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide Press. Gas, H280	3-<10%

· 3.2 Mixtures

- **Description:** Active substance with propellant

· Dangerous components: -

· Ingredients according to detergents guideline 648/2004/EC

aliphatic hydrocarbons	≥ 30%
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· Additional information:

4 First aid measures

· 4.1 Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· 5.1 Extinguishing media

· Suitable extinguishing agents:

Water haze
Fire-extinguishing powder
Carbon dioxide
Alcohol resistant foam

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:**
Observe official regulations on storing packagings with pressurized containers.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Do not seal receptacle gas tight.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

Ingredients with limit values that require monitoring at the workplace:
67-63-0 propan-2-ol

WEL	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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109-66-0 PentaneWEL Long-term value: 1800 mg/m³, 600 ppm**124-38-9 carbon dioxide**WEL Short-term value: 27400 mg/m³, 15000 ppmLong-term value: 9150 mg/m³, 5000 ppm**· DNELs****64742-49-0 Naphtha (petroleum), hydrotreated light**

Oral DNEL Long term-systemic 699 mg/kg bw/day (Consumer)

Dermal DNEL Long term-systemic 699 mg/kg bw/day (Consumer)

773 mg/kg bw/day (Worker)

Inhalative DNEL Long term-systemic 608 mg/m³ (Consumer)2035 mg/m³ (Worker)**67-63-0 propan-2-ol**

Oral DNEL Long term-systemic 26 mg/kg bw/day (Consumer)

Dermal DNEL Long term-systemic 319 mg/kg bw/day (Consumer)

888 mg/kg bw/day (Worker)

Inhalative DNEL Long term-systemic 89 mg/m³ (Consumer)500 mg/m³ (Worker)**109-66-0 Pentane**

Oral DNEL Long term-systemic 214 mg/kg bw/day (Consumer)

Dermal DNEL Long term-systemic 214 mg/kg bw/day (Consumer)

432 mg/kg bw/day (Worker)

Inhalative DNEL Long term-systemic 643 mg/m³ (Consumer)3000 mg/m³ (Worker)**· Additional information:** The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Personal protective equipment:****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter AX/P2

· Protection of hands:

Protective gloves

Solvent resistant gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves Nitrile rubber, NBR**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Use protective suit.

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:

Aerosol

Colour:

According to product specification

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

36 °C

· **Flash point:**

-35 °C

· **Flammability (solid, gaseous):**

Not applicable.

· **Ignition temperature:**

200 °C

· **Decomposition temperature:**

Not determined.

· **Self-igniting:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower:

0.7 Vol %

Upper:

12.0 Vol %

· **Vapour pressure at 20 °C:**

573 hPa

· **Density at 20 °C:**0.762 g/cm³· **Relative density**

Not determined.

· **Vapour density**

Not determined.

· **Evaporation rate**

Not applicable.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

Dynamic:

Not determined.

Kinematic:

Not determined.

· **Solvent content:**

Organic solvents:

96.0 %

· **9.2 Other information**

No further relevant information available.

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10 Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values relevant for classification:

64742-49-0 Naphtha (petroleum), hydrotreated light

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2800 mg/kg (rabbit)
Inhalative	LC50/4 h	>23 mg/l (rat)

67-63-0 propan-2-ol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	13900 mg/kg (rabbit)
Inhalative	LC50/6h	25000 mg/m3 (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information

- **12.1 Toxicity**

· Aquatic toxicity:

64742-49-0 Naphtha (petroleum), hydrotreated light

EC50/48h	3 mg/l (Daphnia magna)
EL50 (72h)	10-30 mg/l (Pseudokirchneriella subcapitata)
LL50 (96h)	>13.4 mg/l (Oncorhynchus mykiss (96h))
LOEC (21 days)	0.32 mg/l (Daphnia magna)
NOEC (21 days)	0.17 mg/l (Daphnia magna)
NOELR (72h)	10 mg/l (Pseudokirchneriella subcapitata)

67-63-0 propan-2-ol

LC50 (24h)	9714 mg/l (Daphnia magna)
LC50/96h	9640 mg/l (Pimephales promelas)
LOEC (8 days)	1000 mg/l (algae)

109-66-0 Pentane

EC50 (72h)	10.7 mg/l (Pseudokirchneriella subcapitata)
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EC50/48h	2.7 mg/l (Daphnia magna)
LC50/96h	4.26 mg/l (Oncorhynchus mykiss (96h))
NOEC (72h)	7.51 mg/l (Pseudokirchneriella subcapitata)

- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **14.1 UN-Number**
 - **ADR, IMDG, IATA** UN1950
 - **14.2 UN proper shipping name**
 - **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
 - **IMDG** AEROSOLS (Naphtha (petroleum), hydrotreated light, PENTANES), MARINE POLLUTANT
 - **IATA** AEROSOLS, flammable
 - **14.3 Transport hazard class(es)**
 - **ADR**
- 

- **Class** 2 5F Gases.
 - **Label** 2.1

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· IMDG

· **Class** 2.1
 · **Label** 2.1

· IATA

· **Class** 2.1
 · **Label** 2.1

· 14.4 Packing group

· **ADR, IMDG, IATA** Void

· 14.5 Environmental hazards:

Product contains environmentally hazardous substances:
 Naphtha (petroleum), hydrotreated light

· Marine pollutant:

Yes
 Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Gases.

· Danger code (Kemler):

-

· EMS Number:

F-D,S-U

· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:**· ADR**

· **Limited quantities (LQ)** 1L
 · **Transport category** 2
 · **Tunnel restriction code** D

· UN "Model Regulation":

UN1950, AEROSOLS, ENVIRONMENTALLY
 HAZARDOUS, 2.1

15 Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· National regulations:****· Technical instructions (air):**

Class	Share in %
NK	75-<100

· **VOC-CH** 96.00 %

· **VOC-EU** 731.5 g/l

· **Danish MAL Code** 5-3

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H224 Extremely flammable liquid and vapour.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
-
- R11 Highly flammable.
- R12 Extremely flammable.
- R36 Irritating to eyes.
- R51/53 Toxic 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.

· **Department issuing MSDS:** Research & Development

· **Contact:** Ing. J. Sleumer

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organization
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)
 DNEL: Derived No-Effect Level (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 Press. Gas: Gases under pressure: Liquefied gas
 Flam. Liq. 1: Flammable liquids, Hazard Category 1
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· *** Data compared to the previous version altered. ***

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Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

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

1.1 Product identifier

Trade name: **Liquid Power**

Article number: PK.10.16

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

Sector of Use
 SU21 Consumer uses: Private households / general public / consumers
 SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
 Process category
 PROC7 Industrial spraying
 PROC11 Non industrial spraying

Application of the substance / the mixture
 Auxiliary

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
 Putoline Oil
 Dollegoorweg 15
 NL-7602 EC ALMELO
 Tel.: +31 (0)546 818165

Further information obtainable from:

Product safety department - vib@putoline.com

1.4 Emergency telephone number:

+31 (0)546 818165 (9 AM to 4 PM, Monday to Friday)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS09 environment

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.



Xi; Irritant

R38: Irritating to skin.



F; Highly flammable

R11: Highly flammable.



N; Dangerous for the environment

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R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

• **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Has a narcotising effect.

• **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• **2.2 Label elements**

• **Labelling according to Regulation (EC) No 1272/2008**
• **Hazard pictograms**

The product is classified and labelled according to the CLP regulation.



GHS02 GHS07 GHS08 GHS09

• **Signal word**

Danger

• **Hazard-determining components of labelling:**

hydrocarbons, c7, n-alkanes, isoalkanes, cyclics
Distillates (petroleum), hydrotreated heavy paraffinic

• **Hazard statements**

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.

• **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P271 Use only outdoors or in a well-ventilated area.
P301+P310 IF SWALLOWED: Immediately call a doctor.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **2.3 Other hazards**

• **Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

• **3.2 Mixtures**

• **Description:** Solvent mixture with additives

• **Dangerous components:**

EC number: 927-510-4 Reg.nr.: 01-2119475515-33	hydrocarbons, c7, n-alkanes, isoalkanes, cyclics Xn R65; Xi R38; F R11; N R51/53 R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	50-100%
CAS: 64742-54-7 EINECS: 265-157-1 Reg.nr.: 01-2119484627-25	Distillates (petroleum), hydrotreated heavy paraffinic Xn R65 Asp. Tox. 1, H304	25-50%
CAS: 12001-85-3 EINECS: 234-409-2	zinc naphthenate N R51/53 Aquatic Chronic 2, H411	0.1-1.0%

• **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

• **4.1 Description of first aid measures**

• **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

• **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

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- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Remove from the water surface (e.g. skim or suck off).
- **6.4 Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- DNEL (Derived No Effect Level) for workers:

hydrocarbons, c7, n-alkanes, isoalkanes, cyclics

Dermal	Long-term - systemic effects, worker	300 mg/kg bw/day (worker)
Inhalative	Long-term - systemic effects, worker	2085 mg/m ³ (worker)

- Additional information:

The lists valid during the making were used as basis.

- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

- Respiratory protection:

Filter A
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Protection of hands:



Wear gloves for the protection against chemicals according to EN 374.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Solvent resistant gloves

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.
Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:



Tightly sealed goggles (EN 166)

- Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Liquid
Colour:	Blue
Odour:	Characteristic
Odour threshold:	Not determined.

- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	83 °C

- Flash point: -5 °C
- Flammability (solid, gaseous): Not applicable.

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· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	0.6 Vol %
Upper:	8 Vol %
· Density at 20 °C:	0.795 g/cm ³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Solvent content:	
Organic solvents:	60.7 %
Solids content:	0.3 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

SECTION 12: Ecological information

- **12.1 Toxicity**

· Aquatic toxicity:
hydrocarbons, c7, n-alkanes, isoalkanes, cyclics
LL/EL/IL50 >13.4 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is difficultly biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:** Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue




20 01 99	other fractions not otherwise specified
07 01 04*	other organic solvents, washing liquids and mother liquors
15 01 04	metallic packaging

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information

<ul style="list-style-type: none"> 14.1 UN-Number ADR,ADN, IMDG, IATA 	UN1993
<ul style="list-style-type: none"> 14.2 UN proper shipping name ADR/ADN IMDG IATA 	<p>1993 FLAMMABLE LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (hydrocarbons, c7, n-alkanes, isoalkanes, cyclics), ENVIRONMENTALLY HAZARDOUS</p> <p>FLAMMABLE LIQUID, N.O.S. (hydrocarbons, c7, n-alkanes, isoalkanes, cyclics, zinc naphthenate), MARINE POLLUTANT</p> <p>FLAMMABLE LIQUID, N.O.S. (hydrocarbons, c7, n-alkanes, isoalkanes, cyclics)</p>
<ul style="list-style-type: none"> 14.3 Transport hazard class(es) ADR,ADN, IMDG 	<div style="display: flex; align-items: center;">   </div> <p>Class: 3 Flammable liquids.</p> <p>Label: 3</p>
<ul style="list-style-type: none"> IATA 	<div style="display: flex; align-items: center;">  </div> <p>Class: 3 Flammable liquids.</p> <p>Label: 3</p>
<ul style="list-style-type: none"> 14.4 Packing group ADR,ADN, IMDG, IATA 	II
<ul style="list-style-type: none"> 14.5 Environmental hazards: Marine pollutant: Special marking (ADR/ADN): 	<p>Product contains environmentally hazardous substances: hydrocarbons, c7, n-alkanes, isoalkanes, cyclics</p> <p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> 14.6 Special precautions for user Danger code (Kemler): EMS Number: 	<p>Warning: Flammable liquids.</p> <p>33</p> <p>F-E,S-E</p>
<ul style="list-style-type: none"> 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> Transport/Additional information: 	
<ul style="list-style-type: none"> ADR/ADN Limited quantities (LQ) Excepted quantities (EQ) Transport category Tunnel restriction code 	<p>1L</p> <p>Code: E2</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 500 ml</p> <p>2</p> <p>D/E</p>

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<ul style="list-style-type: none"> • IMDG • Limited quantities (LQ) • Excepted quantities (EQ) 	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<ul style="list-style-type: none"> • UN "Model Regulation": 	UN1993, FLAMMABLE LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (hydrocarbons, c7, n-alkanes, isoalkanes, cyclics), ENVIRONMENTALLY HAZARDOUS, 3, II

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

• National regulations:

• **VOC-EU** 607.0 g/l

• **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

• 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Relevant phrases

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.
 R11 Highly flammable.
 R38 Irritating to skin.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R65 Harmful: may cause lung damage if swallowed.
 R67 Vapours may cause drowsiness and dizziness.

• Department issuing MSDS:

Product safety department.

• Contact:

Product safety department

• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

• Sources

67/548/EEC
 99/45/EEC
 EC/453-2010