## EZY-OPEN ${ }^{\text {TM }}$ LIQUID

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

1.1. Product identifier

Product form
: Mixture
Trade name
: EZY-OPEN ${ }^{\text {™ }}$ LIQUID
Product code
: J989
Product group

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

1.2.1. Relevant identified uses

| Main use category | : Industrial use |
| :--- | :--- |
| Use of the substance/mixture | : Lubricant |

1.2.2. Uses advised against

No additional information available
1.3. Details of the supplier of the safety data sheet

Manufacturer
Whitmore Manufacturing LLC
930 Whitmore Drive
75087 Rockwall, Texas
USA
T1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com

### 1.4. Emergency telephone number

Emergency number
: For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

| Country | Organisation/Company | Address | Emergency number | Comment |
| :---: | :---: | :---: | :---: | :---: |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH | 03448920111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Cardiff Centre) University Hospital Llandough | Penlan Road CF64 2XX | 03448920111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh | Little France Crescent EH16 4SA | 03448920111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre | 16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB | 03448920111 | Only for healthcare professionals |
| United Kingdom | National Poisons Information Service (Belfast Centre) <br> Royal Victoria Hospital | Grosvenor Road BT12 6BA | 03448920111 | Only for healthcare professionals |
| United Kingdom | Chemtrec - United Kingdom | London | $\begin{aligned} & \text { Local (City) +44 } 203807 \\ & 3798 \end{aligned}$ |  |
| United Kingdom | Chemtrec - United Kingdom |  | Local (National) +44870 8200418 |  |
| United Kingdom | NHS 111/NHS 24/NHS Direct |  | $\begin{aligned} & 111 \\ & 08454647 \end{aligned}$ | or call a doctor |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Skin corrosion/irritation, Category 2 H315

Serious eye damage/eye irritation, Category 2 H319
Full text of H - and EUH-statements: see section 16
Adverse physicochemical, human health and environmental effects
Causes skin irritation. Causes serious eye irritation.

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### 2.2. Label elements

## Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)


GHS07
Signal word (CLP)
Hazard statements (CLP)
Precautionary statements (CLP)
: Warning

H315-Causes skin irritation.
H319- Causes serious eye irritation.
: P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352-IF ON SKIN: Wash with plenty of water. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364-Take off contaminated clothing and wash it before reuse.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1 \%$ assessed in accordance with REACH Annex XIII

| Component |  |
| :--- | :--- |
| polytetrafluoroethylene (9002-84-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIIII <br> This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| 2-methylpentane-2,4-diol (107-41-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII <br> This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| N-methyl-2-pyrrolidone (872-50-4) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII <br> This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 \%

## Component

N-methyl-2-pyrrolidone(872-50-4)

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine dissupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | $\%$ | Classification according to <br> Regulation (EC) No. 1272/2008 <br> [CLP] |
| :--- | :--- | :--- | :--- |
| 2-methylpentane-2,4-diol <br> substance with national workplace exposure limit(s) <br> (GB) | CAS-No.: 107-41-5 <br> EC-No.: 203-489-0 <br> EC Index-No.: 603-053-00-3 | 21.75 | Skin Irrit. 2, H315 <br> Eye Irrit. 2, H319 |
| distillates, hydrotreated light (petroleum) | CAS-No.: 64742-47-8 <br> EC-No.: 265-149-8 <br> EC Index-No.: 649-422-00-2 | 12.5 | Asp. Tox. 1, H304 |
| N-methyl-2-pyrrolidone <br> substance listed as REACH Candidate (1-Methyl-2- <br> pyrrolidone (NMP)) <br> substance with national workplace exposure limit(s) <br> (GB); substance with a Community workplace <br> exposure limit | CAS-No.: 872-50-4 <br> EC-No.: 212-828-1 <br> EC Index-No.: 606-021-00-7 | 9.75 | Not classified |

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| Specific concentration limits: |  | Product identifier |
| :--- | :--- | :--- | Specific concentration limits (\%)

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation
First-aid measures after skin contact

First-aid measures after eye contact

First-aid measures after ingestion
: Remove person to fresh air and keep comfortable for breathing.
: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
: Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed <br> Irritation.

Symptoms/effects after skin contact
Symptoms/effects after eye contact
: Eye irritation.

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

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture <br> Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting
: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures
Exercise caution. Spill area may be slippery. Avoid contact with skin and eyes.
6.1.2. For emergency responders

Protective equipment

### 6.2. Environmental precautions

Avoid release to the environment.
6.3. Methods and material for containment and cleaning up

| Methods for cleaning up | : Take up liquid spill into absorbent material. |
| :--- | :--- |
| Other information | : Dispose of materials or solid residues at an authorized site. |

Other information
: Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling
Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)

No additional information available

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## SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1 National occupational exposure and biological limit values

2-methylpentane-2,4-diol (107-41-5)
United Kingdom - Occupational Exposure Limits

| Local name | 2-Methylpentane-2,4-diol |
| :--- | :--- |
| WEL TWA (OEL TWA) [1] | $123 \mathrm{mg} / \mathrm{m}^{3}$ |
| WEL TWA (OEL TWA) [2] | 25 ppm |
| WEL STEL (OEL STEL) | $123 \mathrm{mg} / \mathrm{m}^{3}$ |
| WEL STEL (OEL STEL) [ppm] | 25 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| N-methyl-2-pyrrolidone (872-50-4) |  |

EU - Indicative Occupational Exposure Limit (IOEL)

| Local name | n-Methyl-2-pyrrolidone |
| :--- | :--- |
| IOEL TWA | $40 \mathrm{mg} / \mathrm{m}^{3}$ |
| IOEL TWA [ppm] | 10 ppm |
| IOEL STEL | $80 \mathrm{mg} / \mathrm{m}^{3}$ |
| IOEL STEL [ppm] | 20 ppm |
| Remark | Skin |
| Regulatory reference | COMMISSION DIRECTIVE 2009/161/EU |


| Local name | N-Methyl-2-pyrrolidone |
| :---: | :---: |
| BLV | $20 \mathrm{mg} / \mathrm{g}$ creatinine Parameter: 2-hydroxy-N-methylsuccinimide - Medium: urine - Sampling time: morning-after-shift ; 18 hours <br> $70 \mathrm{mg} / \mathrm{g}$ creatinine Parameter: 5 -hydroxy-N-methyl-2-pyrrolidone - Medium: urine - <br> Sampling time: 2-4 hours after the end of exposure/shift |
| Regulatory reference | SCOEL List of recommended health-based BLVs and BGVs |
| United Kingdom - Occupational Exposure Limits |  |
| Local name | n -Methyl-2-pyrrolidone |
| WEL TWA (OEL TWA) [1] | $40 \mathrm{mg} / \mathrm{m}^{3}$ |
| WEL TWA (OEL TWA) [2] | 10 ppm |
| WEL STEL (OEL STEL) | $80 \mathrm{mg} / \mathrm{m}^{3}$ |
| WEL STEL (OEL STEL) [ppm] | 20 ppm |
| Remark | Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available
8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

8.2.1. Appropriate engineering controls

## Appropriate engineering controls:

Ensure good ventilation of the work station.

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### 8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Wear eye protection
8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

## Hand protection:

Neoprene or nitrile rubber gloves

| Hand protection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
| Disposable gloves | Nitrile rubber (NBR), Neoprene rubber (HNBR) | 2 (> 30 minutes) | 0.3 mm - 0.6 mm |  |  |

## Other skin protection

Materials for protective clothing:
Wear protective clothing

### 8.2.2.3. Respiratory protection

## Respiratory protection:

No respiratory protection needed under normal use conditions

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state
: Liquid
Colour
: amber.
Appearance
: Liquid.
Odour
: Mild odor.
Odour threshold
: Not available
Melting point
: Not applicable
Freezing point
: $-23^{\circ} \mathrm{C}$
Boiling point
: Not available
Flammability
: Not available
Lower explosion limit
: Not available
Upper explosion limit
: Not available
Flash point
: $82^{\circ} \mathrm{C}$
Auto-ignition temperature
: Not available
Decomposition temperature
: Not available
pH
Viscosity, kinematic
: Not available

Solubility : Slightly soluble
Partition coefficient n-octanol/water (Log Kow)

- Not available

Vapour pressure
: Not available
Vapour pressure at $50^{\circ} \mathrm{C}$
: Not available
Density
: Not available
Relative density
: Not available
Relative vapour density at $20^{\circ} \mathrm{C}$
: Not available
: Not applicable

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### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available
9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials

No additional information available
10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)
: Not classified
Acute toxicity (dermal)
: Not classified
Acute toxicity (inhalation)
distillates, hydrotreated light (petroleum) (64742-47-8)

| LD50 oral rat | $>5000 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral <br> Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method) |
| :--- | :--- |
| LD50 dermal rabbit | $>2000 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal <br> Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | $>5.28 \mathrm{mg} / \mathrm{l}$ air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), <br> $95 \% \mathrm{CL}: 0,42-$ |

## 2-methylpentane-2,4-diol (107-41-5)

| LD50 oral rat | $>2000 \mathrm{mg} / \mathrm{kg}$ bodyweight (OECD 420: Acute Oral toxicity - Acute Toxic Class Method, <br> Rat, Male / female, Experimental value, Oral, 15 day(s)) |
| :--- | :--- |
| LD50 oral | $3680 \mathrm{mg} / \mathrm{kg}$ <br> LD50 dermal rat <br> LC50 Inhalation - Rat <br> Experimental value, Dermal, 15 day(s)) |
| N-methyl-2-pyrrolidone (872-50-4) | $>55 \mathrm{mg} / \mathrm{l}$ (Equivalent or similar to OECD 403, 8 h , Rat, Male, Experimental value, <br> Inhalation (vapours), 14 day(s)) |
| LD50 oral rat | $4150 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), <br> $95 \% \mathrm{CL}: 3100-5560$ |
| LD50 dermal rat | $>5000 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal <br> Toxicity) |
| LC50 Inhalation - Rat | $>5.1 \mathrm{mg} / \mathrm{l}$ air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity) |

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Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity
: Not classified (Based on available data, the classification criteria are not met)
N-methyl-2-pyrrolidone (872-50-4)

| NOAEL (chronic, oral, animal/male, 2 years) | $\approx 89 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B. 32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information) |
| :---: | :---: |
| NOAEL (chronic, oral, animal/female, 2 years) | $\approx 221 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B. 32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information) |
| Reproductive toxicity | : Not classified (Based on available data, the classification criteria are not met) |
| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| NOAEL (animal/male, F0/P) | $\geq 3000$ mg/kg bodyweight Animal: rat, Animal sex: male |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| LOAEL (animal/male, F0/P) | $500 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008 |
| NOAEL (animal/male, F0/P) | 200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008 |
| NOAEL (animal/female, F0/P) | $\geq 1000 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test), Guideline: other:Commission Regulation (EC) No. 440/2008, Part B.3, 30 May 2008 |

STOT-single exposure
: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure
: Not classified (Based on available data, the classification criteria are not met)

## distillates, hydrotreated light (petroleum) (64742-47-8)

| NOAEL (oral, rat, 90 days) | $750 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Animal sex: female |
| :---: | :---: |
| NOAEC (inhalation, rat, vapour, 90 days) | $\geq 0.024 \mathrm{mg} / \mathrm{l}$ air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study) |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| NOAEL (oral, rat, 90 days) | $450 \mathrm{mg} / \mathrm{kg}$ bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90Day Oral Toxicity in Rodents) |
| N-methyl-2-pyrrolidone (872-50-4) |  |
| LOAEC (inhalation, rat, dust/mist/fume, 90 days) | $1 \mathrm{mg} / \mathrm{l}$ air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90Day Study) |
| NOAEL (dermal, rat/rabbit, 90 days) | 826 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| NOAEC (inhalation, rat, dust/mist/fume, 90 days) | $0.5 \mathrm{mg} / \mathrm{I}$ air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study) |
| Aspiration hazard | Not classified (Based on available data, the classification criteria are not met) |
| EZY-OPEN ${ }^{\text {TM }}$ LIQUID |  |
| Viscosity, kinematic | > $21.5 \mathrm{~mm}^{2} / \mathrm{s} @ 40^{\circ} \mathrm{C}$ |
| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| Viscosity, kinematic | $1.97 \mathrm{~mm}^{2} / \mathrm{s}\left(25^{\circ} \mathrm{C}\right)$ |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| Viscosity, kinematic | Not determined |
| N-methyl-2-pyrrolidone (872-50-4) |  |
| Viscosity, kinematic | $1.7 \mathrm{~mm}^{2} / \mathrm{s}\left(25^{\circ} \mathrm{C}\right)$ |

### 11.2. Information on other hazards

No additional information available

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## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general
Hazardous to the aquatic environment, short-term (acute)
Hazardous to the aquatic environment, long-term (chronic)
Not rapidly degradable

| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| :---: | :---: |
| LC50 - Fish [1] | 2.2 mg/l |
| EC50 - Crustacea [1] | > $100 \mathrm{mg} / \mathrm{l}$ (Invertebrata) |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| LC50 - Fish [1] | $9450 \mathrm{mg} / \mathrm{I}$ (Equivalent or similar to OECD 203, 96 h , Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 5410 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | $>429 \mathrm{mg} / \mathrm{I}$ Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) |
| ErC50 algae | > $429 \mathrm{mg} / \mathrm{l}$ Source: EHCA |
| N-methyl-2-pyrrolidone (872-50-4) |  |
| LC50 - Fish [1] | > $500 \mathrm{mg} / \mathrm{I}$ Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) |
| EC50 - Crustacea [1] | $1107 \mathrm{mg} / \mathrm{l}$ (EPA 660/3-75/009, 96 h , Palaemonetes vulgaris, Static system, Salt water, Experimental value) |
| EC50 - Crustacea [2] | > $1000 \mathrm{mg} / \mathrm{l}$ (DIN 38412-11, 24 h, Daphnia magna, Static system, Fresh water, Experimental value) |
| EC50 72h - Algae [1] | $600.5 \mathrm{mg} / \mathrm{l}$ Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| EC50 72h - Algae [2] | > $500 \mathrm{mg} / \mathrm{I}$ Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| LOEC (chronic) | $25 \mathrm{mg} / \mathrm{l}$ Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | 12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic crustacea | 12.5 mg/l |
| 12.2. Persistence and degradability |  |
| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| Persistence and degradability | Readily biodegradable in water. |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | $0.02 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| Chemical oxygen demand (COD) | $2.2 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| ThOD | $2.3 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| N-methyl-2-pyrrolidone (872-50-4) |  |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | $1.07 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| Chemical oxygen demand (COD) | $1.56 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| ThOD | $1.9 \mathrm{~g} \mathrm{O}_{2} / \mathrm{g}$ substance |
| BOD (\% of ThOD) | 0.56 |
| 12.3. Bioaccumulative potential |  |
| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| Partition coefficient n -octanol/water (Log Pow) | 6-8.2 |

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| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| :---: | :---: |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| Partition coefficient n -octanol/water (Log Pow) | 0.58 (QSAR, KOWWIN) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| N -methyl-2-pyrrolidone (872-50-4) |  |
| BCF - Other aquatic organisms [1] | 3 (Calculated value) |
| Partition coefficient n -octanol/water (Log Pow) | -0.46 Source: ECHA |
| Bioaccumulative potential | Not bioaccumulative. |
| 12.4. Mobility in soil |  |
| distillates, hydrotreated light (petroleum) (64742-47-8) |  |
| Surface tension | $0.026 \mathrm{~N} / \mathrm{m}\left(20^{\circ} \mathrm{C}\right)$ |
| Ecology - soil | Adsorbs into the soil. |
| 2-methylpentane-2,4-diol (107-41-5) |  |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| N-methyl-2-pyrrolidone (872-50-4) |  |
| Surface tension | $0.407 \mathrm{~N} / \mathrm{m}$ |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.32 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| 12.5. Results of PBT and vPvB assessment |  |
| Component |  |
| polytetrafluoroethylene (9002-84-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| 2-methylpentane-2,4-diol (107-41-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| N-methyl-2-pyrrolidone (872-50-4) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

### 12.6. Endocrine disrupting properties

No additional information available
12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods
: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information
In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
| :---: | :---: | :---: | :---: | :---: |
| 14.1. UN number or ID number |  |  |  |  |
| Not regulated for transport |  |  |  |  |
| 14.2. UN proper shipping name |  |  |  |  |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) |  |  |  |  |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |

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| ADR | IMDG | IATA | ADN | RID |
| :---: | :---: | :---: | :---: | :---: |
| 14.4. Packing group |  |  |  |  |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards |  |  |  |  |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available |  |  |  |  |
| 14.6. Special precautions for user Overland transport |  |  |  |  |
| Not regulated |  |  |  |  |
| Transport by sea |  |  |  |  |
| Not regulated |  |  |  |  |
| Air transport |  |  |  |  |
| Not regulated |  |  |  |  |
| Inland waterway transport |  |  |  |  |
| Not regulated |  |  |  |  |
| Rail transport |  |  |  |  |
| Not regulated |  |  |  |  |
| 14.7. Maritime tran Not applicable | according | ments |  |  |

## SECTION 15: Regulatory information

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

### 15.1.1. EU-Regulations

## REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

## REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

## REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations $\geq 0.1 \%$ or SCL: 1-Methyl-2-pyrrolidone (NMP) (EC 212-828-1, CAS 872-50-4)

## PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

## POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

## Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

## Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

## Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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## SECTION 16: Other information

Abbreviations and acronyms:

| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| :--- | :--- |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | Median lethal concentration |
| LC50 | Median lethal dose |
| LD50 | Lowest Observed Adverse Effect Level |
| LOAEL | No-Observed Adverse Effect Concentration |
| NOAEC | No-Observed Adverse Effect Level |
| NOAEL | Endocrine disrupting properties |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatil Organic Compounds |
| CAS-No. | N.O.S. |

## Full text of H - and EUH-statements:

| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| :--- | :--- |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |

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| Full text of H- and EUH-statements: |  |
| :--- | :--- |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation |
| Safety Data Sheet (SDS), EU |  |
| This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental |  |
| requirements only. It should not therefore be construed as guaranteeing any specific property of the product. |  |

