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

**1.1 Product identifier**

**Trade name:** Ultimate 3D urinal screen

**1.1. Relevant identified uses of the substance or mixture and uses advised against on**

**Application of the substance/ mixture:** For urinal deodorizing.

**1.2. Details of the supplier of the safety data sheet**

- **NAME: CHEMSOLVE PTY LTD.**
- **ADDRESS:** 3 Warin Avenue Pemulwuy NSW 2145 Australia
- **TEL:** +61 435 313 535
- **EMAIL**: dhaval@chemsolve.com.au
- **POISION INFORMATION CONTACT** – 13 11 26

# 2. Hazards identification

**2.1 Classification of the substance or mixture**

**2.1.1 Classification according to regulation (EC) 1272/2008:**

| Regulation (EC) No 1272/2008 [CLP] | Classification procedure |
|---|---|
| Skin Irrit. 2, H315 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| Aquatic Chronic 2, H411 | Calculation method |

**2.1.2 Additional information:** For full text of Hazard- and EU Hazard-statements: see SECTION 16**.**

**2.2 Label elements**

- **Labeling according to Regulation (EC) No 1272/2008:** The product is labelled according to Regulation (EC) No 1272/2008
- **Hazard pictograms:**

GHS07 GHS09

- **Signal word:** Warning
- ***Hazard-determining components of labelling:*** *D-Limonene; Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate; Linalool; alpha-Isomethyl ionone; Linalyl acetate*
- **Hazard statements:**

*H315* *Causes skin irritation*

H317 May cause an allergic skin reaction

H411 Toxic to aquatic life with long lasting effects

- **Precautionary statement:**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

*P264* *Wash hands thoroughly after handling.*

| | |
|---|---|
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P391 | Collect spillage. |

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

- **Supplemental label elements:** Not applicable

**2.3 Other hazards**

None ingredients (≥0.1%) meets the criteria for PBT/vPvB in accordance with Annex XIII.

None ingredients (≥0.1%) identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.

## 3. Composition/information on ingredients

**3.1 Substance**

Not applicable

**3.2 Mixtures**

**Description of the mixture:** Ultimate 3D urinal screen (Mango)

**Ingredients:**

| Substance | CAS No. | Index No. | EC No. | w/w, % | CLP Classification | SCL/M-factor/ATE |
|---|---|---|---|---|---|---|
| Ethylene vinyl acetate (EVA) | 24937-78-8 | - | - | 79.5 | None | - |
| D-Limonene | 5989-27-5 | 601-029-00-7 | 227-813-5 | 5-7.5 | Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1,H400 Aquatic Chronic 1, H410 | Skin Irrit. 2, H315: C≥20% M=1 M(Chronic)=1 |
| Benzyl dimethy carbinyl butyrate | 10094-34-5 | - | 233-221-8 | 3.75-5 | Aquatic Chronic 2, H411 | - |
| Benzyl benzoate | 120-51-4 | 607-085-00-9 | 204-402-9 | 1.25-2.5 | Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 | ATE(oral)= 1900 mg/kg M=1 |
| Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate | 77-83-8 | - | 201-061-8 | 1.25-2.5 | Skin Sens. 1B, H317 Aquatic Chronic 2, H411 | - |
| Herbal propionate | 17511-60-3 | - | 241-514-7 | 1.25-2.5 | Eye Irrit. 2, H319 Aquatic Chronic 2, H411 | - |
| Pigment | - | - | - | 0.5 | - | - |
| Linalool | 78-70-6 | 603-235-00-2 | 201-134-4 | 0.25-1.25 | Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Irrit. 2, H319 | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| alpha-Isomethyl ionone | 127-51-5 | - | 204-846-3 | 0.25-1.25 | Skin Irrit. 2, H315<br>Skin Sens. 1B, H317<br>Eye Irrit. 2, H319<br>Aquatic Chronic 2, H411 | - |
| Isoamyl butyrate | 106-27-4 | - | 203-380-8 | 0.25-1.25 | Flam. Liq. 3, H226<br>Aquatic Chronic 3, H412 | - |
| Linalyl acetate | 115-95-7 | - | 204-116-4 | 0.25-1.25 | Skin Irrit. 2, H315<br>Skin Sens. 1B, H317<br>Eye Irrit. 2, H319 | - |
| gamma-Decalactone | 706-14-9 | - | 211-892-8 | 0.25-1.25 | None | - |
| Undecan-4-olide | 104-67-6 | - | 203-225-4 | 0.25-1.25 | Aquatic Chronic 3, H412 | - |
| Cinnamaldehyde | 104-55-2 | - | 203-213-9 | 0.025-0.25 | Acute Tox. 4, H312<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319 | ATE (dermal)= 1100 mg/kg |
| Coumarin | 91-64-5 | - | 202-086-7 | 0.025-0.25 | Acute Tox. 3, H301<br>Skin Sens. 1, H317<br>Aquatic Chronic 3, H412 | ATE(oral)= 293 mg/kg |

**Additional information:**
Full text of H- and EUH-phrases: see SECTION 16.

## 4. First aid measures

**4.1 Description of first aid measures**

**General advice:** If medical advice is needed, have product container or label at hand.

**After inhalation:** Supply with fresh air. Get medical attention if you feel unwell.

**After skin contact:** Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

**After eye contact:** Rinse cautiously with water for several minutes. If eye irritation occurs: Get medical advice/attention.

**After swallowing:** Rinse mouth. **Call a POISON CENTER/doctor if you feel unwell.**

· **4.2 Most important symptoms and effects, both acute and delayed:** Causes skin irritation; May cause an allergic skin reaction.

**4.3 Indication of any immediate medical attention and special treatment needed:** Treat according to symptom, there is not known specific medicine.

## 5. Fire-fighting

**5.1 Extinguishing media**

**Suitable extinguishing agents:** Use $CO_2$, chemical powder, water spray or alcohol resistant foam to extinguish.

**Unsuitable extinguishing media:** Water with full jet.

**5.2 Special hazards arising from the substance or mixture***: May produce allergic / irritant vapor in air under fire.*

**5.3 Advice for firefighters Protective equipment:** Wear an approved positive pressure self-contained breathing apparatus (Comply with EN 133).

## 6. Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

**6.1.1 For non-emergency personnel**

- **Protective equipment:** Protective gloves and respiration protection.
- **Emergency procedures:** Evacuate immediately; Avoid breathing gas; Avoid contact with skin and eyes; Avoid release to the environment.

**6.1.2 For emergency responders**

- **Personal protective equipment:** Protective gloves and respiration protection.

**6.2 Environmental precautions:**

Prevent further leakage or spillage if safe to do so.
Prevent spillage from entering drains, sewer, basement or confined areas.
If the spillage contaminates rivers, lakes or drains inform respective authorities.

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

Sweep up without creating dust and shovel into suitable containers for disposal.
Ensure good ventilation.
Dispose contaminated material as waste according to section 13.

**6.4 Reference to other sections:**

See section 7 for information on safe handing.
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:**

Read carefully and follow all instructions.
Ensure adequate ventilation at workplace.
Wear protective equipment's.
Avoid breathing dust.
Avoid contact with eyes and skin.
Avoid release to the environment.

**Information about fire and explosion protection:** Normal measures for preventive fire protection.

**7.2 Conditions for safe storage, including any non-compatibility**

- **Requirements to be met by storerooms and receptacles:** *Store in a cool and well-ventilated place.*
- **Information about storage in one common storage facility:** *Keep out of reach of children.*
- **Further information about storage conditions:** *Store locked up.*
- **Storage class:** 13.

**7.3 Specific end use(s):** See section 1.2.

## 8. Exposure controls/personal protection

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

| *Country* | *Limit value - Eight hours* | *Limit value - Short term* |
|---|---|---|
| *5989-27-5 D-Limonene* | | |
| *Finland* | *25ppm;140mg/m$^3$* | *50ppm;280mg/m$^3$ 15 minutes average value* |
| *Germany (AGS)* | *5ppm;28mg/m$^3$* | *20ppm;110mg/m$^3$ 15 minutes reference period* |
| *Germany (DFG)* | *5ppm;28mg/m$^3$* | *20ppm;112mg/m$^3$ 15 minutes average value* |

- **DNELs:**

| **DNEL type** | | **DNEL worker value** | **DNEL consumer value** |
|---|---|---|---|
| *5989-27-5 D-Limonene* | | | |
| Systemic Effects | *Long-term, inhalation exposure* | *66.7 mg/m³* | *16.6 mg/m³* |
| | *Long-term, dermal exposure* | *9.5 mg/kg bw/day* | *4.8 mg/kg bw/day* |
| | *Long-term, oral exposure* | - | *4.8 mg/kg bw/day* |
| *120-51-4 Benzyl benzoate* | | | |
| Systemic effects | *Long-term, inhalation exposure* | *5.1 mg/m³* | *1.25 mg/m³* |
| | *Acute /short term, inhalation exposure* | *102 mg/m³* | - |
| | *Long-term, dermal exposure* | *2.6 mg/kg bw/day* | *1.3 mg/kg bw/day* |
| | *Long-term, oral exposure* | - | *400 µg/kg bw/day* |
| | *Acute /short term, oral exposure* | - | *78 mg/kg bw/day* |
| *77-83-8 Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate* | | | |
| *Systemic effects* | *Long-term, inhalation exposure* | *2.45 mg/m³* | *610 µg/m³* |
| | *Long-term, dermal exposure* | *700 µg/kg bw/day* | *350 µg/kg bw/day* |
| | *Long-term, oral exposure* | - | *350 µg/kg bw/day* |
| *78-70-6 Linalool* | | | |
| *Systemic effects* | *Long-term, inhalation exposure* | *2.8 mg/m³* | *700 µg/m³* |
| | *Acute /short term, inhalation exposure* | *16.5 mg/m³* | *4.1 mg/m³* |

| | | | |
|---|---|---|---|
| | *Long-term, dermal exposure* | *2.5 mg/kg bw/day* | *1.25 mg/kg bw/day* |
| | *Acute /short term, dermal exposure* | *5 mg/kg bw/day* | *2.5 mg/kg bw/day* |
| | *Long-term, oral exposure* | *-* | *200 µg/kg bw/day* |
| | *Acute /short term, oral exposure* | *-* | *1.2 mg/kg bw/day* |
| *Local effects* | *Long-term, dermal exposure* | *3 mg/cm²* | *1.5 mg/cm²* |
| | *Acute /short term, dermal exposure* | *3 mg/cm²* | *1.5 mg/cm²* |

- **PNECs:**

| **PNEC type** | **Value** |
|---|---|
| 5989-27-5 D-Limonene | |
| Freshwater | 14 µg/L |
| Marine water | 1.4 µg/L |
| Sewage treatment plant (STP) | 1.8 mg/L |
| Sediment (freshwater) | 3.85 mg/kg sediment dw |
| Sediment (marine water) | 385 µg/kg sediment dw |
| 120-51-4 Benzyl benzoate | |
| Freshwater | 16.8 µg/L |
| Marine water | 1.68 µg/L |
| Sewage treatment plant (STP) | 100 mg/L |
| Sediment (freshwater) | 10.66 mg/kg sediment dw |
| Sediment (marine water) | 1.07 mg/kg sediment dw |
| 77-83-8 Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate | |
| Freshwater | 8.4 µg/L |
| Intermittent releases (freshwater) | 84 µg/L |
| Marine water | 8.4 µg/L |
| Sewage treatment plant (STP) | 10 mg/L |
| Sediment (freshwater) | 214 µg/kg sediment dw |
| Sediment (marine water) | 21.4 µg/kg sediment dw |
| 78-70-6 Linalool | |
| Freshwater | 200 µg/L |
| Intermittent releases (freshwater) | 2 mg/L |
| Marine water | 20 µg/L |
| Sewage treatment plant (STP) | 10 mg/L |
| Sediment (freshwater) | 2.22 mg/kg sediment dw |
| Sediment (marine water) | 222 µg/kg sediment dw |

**Additional information:**
The lists valid during the marking were used as a basis.

**8.2 Exposure controls**

**Based on the composition shown in section 3, the following measures are suggested for occupational safety measure.**

**Appropriate engineering controls:**

Handle in accordance with good industrial hygiene and safety practice.
Wash hands and face before breaks and at the end of work.
Take off contaminated clothing and wash it before reuse.
See section 7 for information about design of technical facilities.

**Personal protective equipment**

**Eye and face protection:**

**Safety glasses**
Protective goggles with side-shields.
**Skin protection**
**Hand protection:**

**Protective gloves**
Gloves made from butyl rubber Neoprene™ rubber, nitrile rubber (thickness> 0.3mm; breakthrough times up to 480 minutes).
**Other skin protection:**
Gauntlets, boots, bodysuit are recommended.

**Respiration protection:**
Use positive pressure breathing mask if concentrations in air could exceed occupational exposure standard.

**Thermal hazards:**
The gauntlets, boots, bodysuit and other personal protective equipment must be flame retardant and no heat-conducting.
**Environmental exposure controls:**
Control measures must be made in accordance with Community environmental protection legislation.

## 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Physical state** | solid |
| **Color** | various |
| **Odor & Odor threshold** | (Mango, Cotton Blossom, Kiwi Grapefruit) |
| **Melting point/freezing point (or softening point/range)** | Not determined |
| **Boiling point or initial boiling point and boiling range** | 176°C (D-Limonene |
| **Flammability** | Not flammable gel. |
| **Lower and upper explosion limit** | Not determined |
| **Flash point** | Not applicable |
| **Auto-ignition temperature** | Not applicable |
| **Decomposition temperature** | Not applicable |
| **pH** | Not determined, mixture is insoluble in water. |
| **Kinematic viscosity (mm2/s)** | Not determined |
| **Solubility** | Insoluble in water |
| **Partition coefficient n-octanol/water (log value)** | Not determined |
| **Vapor pressure** | Not determined |
| **Density and/or relative density** | Not determined |
| **Relative vapor density** | Not determined |
| **Particle characteristics** | Not applicable |

**9.2 Other information**

**9.2.1 Information with regard to physical hazard classes: Not applicable**

**9.2.2 Other safety characteristics – Not applicable**

## 10. Stability and reactivity

**10.1 Reactivity:** The product is not-reactive under normal conditions of use, storage and transport.

**10.2 Chemical stability:** Under storage at normal ambient temperatures, the product is stable.

**10.3 Possibility of hazardous reactions:** No known hazardous reaction.

**10.4 Conditions to avoid:** High temperature and flame.

**10.5 Incompatible materials:** Strong bases, strong oxidizing agents.

**10.6 Hazardous decomposition products:** Does not decompose when used for intended uses.

## 11. Toxicological Information

**11.1 Information on toxicological effects**

**Acute toxicity:** Based on available data, the classification criteria are not met.

| **LD50/LC50 values relevant for classification:** | | |
|---|---|---|
| 5989-27-5 D-Limonene | | |
| Rabbit | LD50-skin | > 5000mg/kg |
| Rat | LD50-oral | 4400mg /kg |
| Mouse | LD50-oral | 5600mg/kg |
| 120-51-4 Benzyl benzoate | | |
| Rat | LD50-oral<br>LD50-skin | 1900 mg/kg<br>4mL/kg |
| Mouse | LD50-oral | 1400uL/kg |
| Rabbit | LD50-oral<br>LD50-skin | 1680mg/kg<br>4000mg/kg |
| 77-83-8 Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate | | |
| Guinea pig | LD50-oral | 4050mg/kg |
| Rat | LD50-oral | 5470mg/kg |
| 78-70-6 Linalool | | |
| Rabbit | LD50-skin | 5610mg/kg |
| Rat | LD50-oral<br>LD50-skin | 2790mg /kg<br>5610mg/kg |
| Mouse | LD50-oral | 3000mg/kg |
| 91-64-5 Coumarin | | |

| | | |
|---|---|---|
| Rat | LD50-oral | 293mg/kg |
| Mouse | LD50-oral | 196mg/kg |
| Guinea pig | LD50-oral | 202mg/kg |
| Remark: All the above data are from literature. | | |

· **Skin corrosion/irritation:** Causes skin irritation.

· **Serious eyes damage/ irritation:** Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitization:** May cause an allergic skin reaction.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **Summary of evaluation of the CMR properties:** Not classified as CMR product.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

***11.2*** **Information on other hazards**

***11.2.1*** **Endocrine disrupting properties:**

None ingredient (≥0.1%) is considered to have endocrine-disrupting properties with respect to humans as it meets the criteria set out in section A of Regulation (EU) No 2017/2100.

11.2.2 **Other information:** No known other relevant information on adverse health effects.

## 12. Ecological

**12.1 Toxicity:**

| | |
|---|---|
| LC50/EC50/NOEC values relevant for classification: | |
| 5989-27-5 D-Limonene | |
| Short–term toxicity to fish | LC50 (4 days) 460 - 720 µg/L<br>EC50 (4 days) 688 - 702 µg/L |
| Long–term toxicity to fish | NOEC (28 days) 80 µg/L |
| Short–term toxicity to aquatic invertebrates | EC50 (48 h) 307 - 510 µg/L<br>EC50 (24 h) 840 µg/L |
| Long–term toxicity to aquatic invertebrates | NOEC (21 days) 50 - 80 µg/L<br>EC50 (21 days) 188 µg/L |
| Toxicity to aquatic algae and cyanobacteria | EC50 (72 h) 214 - 320 µg/L<br>NOEC (48 h) 90 µg/L |
| 120-51-4 Benzyl benzoate | |
| Long–term toxicity to aquatic invertebrates | NOEC (21 days) 258 - 970 µg/L |
| Toxicity to aquatic algae and cyanobacteria | EC50 (72 h) 475 µg/L<br>NOEC (72 h) 247 µg/L |
| 77-83-8 Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate | |

| | |
|---|---|
| Short–term toxicity to fish | LC50 (4 days) 4.2 mg/L |
| Short–term toxicity to aquatic invertebrates | EC50 (48 h) 52 mg/L |
| Toxicity to aquatic algae and cyanobacteria | EC50 (4 days) 42 mg/L |
| 78-70-6 Linalool | |
| Short–term toxicity to fish | LC50 (4 days) 27.8 mg/L |
| Short–term toxicity to aquatic invertebrates | EC50 (48 h) 59 mg/L<br>NOEC (48 h) 25 mg/L |
| Toxicity to aquatic algae and cyanobacteria | EC50 (4 days) 88.3 - 156.7 mg/L |
| Toxicity to microorganisms | EC50 (3 h) 100 mg/L |

**12.2 Persistence and degradability:**

| | | |
|---|---|---|
| 5989-27-5 | D-Limonene | Readily biodegradable in water |
| 120-51-4 | Benzyl benzoate | Readily biodegradable in water |
| 77-83-8 | Strawberry aldehyde / Ethyl 3-methyl-3-phenylglycidate | Inherently biodegradable in water |
| 78-70-6 | Linalool | Readily biodegradable in water |

**12.3 Bio-accumulative potential:**

| | | |
|---|---|---|
| 5989-27-5 | D-Limonene | Log Pow =4.38 at 37 °C and pH 7.2 |
| 120-51-4 | Benzyl benzoate | Log Pow = 3.97 at 25 °C |
| 77-83-8 | Strawberry aldehyde / Ethyl3-methyl-3-phenylglycidate | Log Pow =2.4 - 2.8 at 25 °C |
| 78-70-6 | Linalool | Log Pow = 2.84 - 2.9 at 20 - 25 °C and pH 7 |

**12.4 Mobility in soil:** No available data.

**12.5 Results of PBT and vPvB assessment:** This mixture does not contain any substances (≥0.1%) that are assessed to be a PBT or a vPvB.

**12.6 Endocrine disrupting properties:** *None ingredient (≥0.1%) does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.*

**12.7 Other adverse effects:** *No known other adverse effects.*

**12.8 Additional ecological information**

*General notes:* ***WGK 2 (German Regulation) (self-assessment): Hazard to waters. Do not allow the product to reach ground water, water course or sewage***

## 13. Disposal consideration

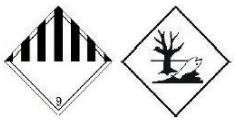
**13.1 Waste treatment methods**

**Recommendation:** Must not be disposed together with household garbage.

**13.2 Un-cleaned packaging**

**Recommendation:** Dispose of contents/container in according to the local/regional/national/ international regulation.

## 14. Transport Information

| | |
|---|---|
| · **14.1 UN-Number**<br>**ADR, RID, ADN, IMDG, IATA** | UN3077 |
| · **14.2 UN proper shipping name**<br>**ADR, RID, ADN, IMDG, IATA** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S. |
| · **14.3 Transport hazard class (es)**<br>**ADR, RID, ADN, IMDG, IATA**<br><br>**Class**<br>**Label** |  <br>9 Miscellaneous dangerous substances and articles. 9 |
| · **14.4 Packing group**<br>**ADR, RID, ADN, IMDG, IATA** | III |
| · **14.5 Marine pollution** | No |
| · **14.6 Special precautions for user**<br>· **Danger code (Kemler)**<br>· **EMS number** | Warning: Miscellaneous dangerous substances and articles 90<br>F-A,S-F |
| · **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | IBC08 |

## 15. Regulatory Information

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

- **MAK (German Maximum Workplace Concentration):** None of the ingredients is listed.
- **Directive 2012/18/EU**
- **Named dangerous substances-ANNEX I:** None of the ingredients is listed.
- **Seveso category:** E2 Hazardous to the Aquatic Environment.
- **Qualifying quantity (tonnes) for the application of lower-tier requirements:** 200ton(net).
- **Qualifying quantity (tonnes) for the application of upper-tier requirements:** 500ton(net).***National regulations.***
- ***Water hazard class:*** *WGK 2 (German Regulation) (self-assessment): Hazard to waters.*
- ***Other regulations, limitations and prohibitive regulations***
- ***SVHC Candidate list of REACH Regulation Annex XIV Authorization:*** *None of the ingredients is listed.*
- ***REACH Regulation Annex XVII Restriction:*** *None of the ingredients is listed.*
- ***REACH Regulation Annex XIV Authorization List:*** *None of the ingredients is listed.*

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

## 16. Other Information

**16.1 Indication of changes:**

None.

**16.2 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.

CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bio accumulative and Toxic

vPvB: very persistent and very bio accumulative

SVHC: Substance of Very High Concern

LD50: Lethal dose, 50 percent

LC50: Lethal concentration, 50 percent

EC50: Concentration of maximal effect, 50 percent

NOEC: No observed effect concentration

Flam. Liq. 3: Flammable liquids, hazard category 3

Acute Tox. 3: Acute toxicity, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Irrit.2: Skin corrosion/irritation, hazard category 2

Skin Sens. 1: Respiratory or skin sensitization, hazard category 1

Skin Sens. 1B: Respiratory or skin sensitization, hazard category 1B

Eye Irrit. 2: Eye damage/irritation, hazard category 2

*Aquatic Acute 1: Short-term (acute) aquatic hazard, hazard category 1*
*Aquatic Chronic 1: Long-term (chronic) aquatic hazard, hazard category 1*
*Aquatic Chronic 2: Long-term (chronic) aquatic hazard, hazard category 2*
*Aquatic Chronic 3: Long-term (chronic) aquatic* hazard, hazard category 3

**16.3 Key literature references and sources for data:**

https://echa.europa.eu/

https://chem.nlm.nih.gov/

https://www.osha.gov/

http://www.unece.org/

http://www.imo.org/

https://www.dguv.de/

https://epa.govt.nz/

http://www.ilo.org/

https://www.phmsa.dot.gov/

**16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:**

See SECTION 2.1 (classification).

**16.5 Relevant H- and EUH-phrases (number and full text):**

H226 Flammable liquid and vapour

H301 Toxic if swallowed

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

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

H412 Harmful to aquatic life with long lasting effects

**16.6 Training advice:**

Workers must be educated and trained so they can read SDS and understand the hazards, and know how to work safely with hazardous products.

**16.7 Further information:**

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, its amendment Regulation (EU) No 2020/878 and (EC) No 1272/2008.

DISCLAIMER OF LIABILITY:

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**********End of safety data sheet