# **COLOROBBIA**

# SAFETY DATA SHEET

| COLOROBBIA ITALIA |   |            |               |   | HTL(       | 000031               |
|-------------------|---|------------|---------------|---|------------|----------------------|
| S.P.A.            |   |            |               |   |            |                      |
| Date of printing  | : | 22.10.2024 | Date of issue | : | 06.07.2024 | Issue/Revision : 8.0 |

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Italy

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

#### 1.1 Product identifier

Product name : HTL--000031

 UFI
 : 0SG3-M06F-X00D-538D

 Product code
 : 00000000010057886

 Other means of identification
 : HTL--000031-H009

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

Identified uses : Third firing decoration in the glass/ceramics/porcelain sectorsThird

firing decoration in the glass/ceramics/porcelain sectors

#### Uses advised against

Not applicable.

# 1.3 Details of the supplier of the safety data sheet

COLOROBBIA ITALIA S.P.A. Indirizzo via Pietramarina 53

Località e Stato 50053 Sovigliana - Vinci (FI)

Italia

tel. +39 0571 7091 fax +39 0571 709.850

e-mail address of person responsible for this SDS 1.4 Emergency telephone number OHSE@colorobbia.it

# National advisory body/Poison Center

**Telephone number** : +39 011 6637637 (Torino), +39 02 66101029 (Milano), +39 0382

24444; (Pavia). +39 049 8275078 (Padova), +390105636245 (Genova), +39055 4277238 (Firenze), +39 06 30.54343 (Roma),

+39 06 49970698 (Roma), +39081 7472870 (Napoli)



# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

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

Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 1, H372 Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

Hazard pictograms





Signal word : Danger

**Hazard statements**: H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H372 Causes damage to organs through prolonged or repeated

exposure.

H412 Harmful to aquatic life with long lasting effects.

# **Precautionary statements**

General : P103 - Read carefully and follow all instructions.P102 - Keep out of

reach of children. P<br/>101 - If medical advice is needed, have product  $% \left( 1\right) =\left( 1\right) \left( 1\right) =\left( 1\right) \left( 1\right)$ 

container or label at hand.

**Prevention**: P280 - Wear protective gloves. P280 - Wear eye or face protection.

P273 - Avoid release to the environment. P260 - Do not breathe vapor. P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

**Response** : P314 - Get medical advice or attention if you feel unwell. P362 +

P364 - Take off contaminated clothing and wash it before reuse. P302 - IF ON SKIN: P302 + P352 - Wash with plenty of water. P333 - If skin irritation or rash occurs: P333 + P313 - Get medical advice or attention. P305 - IF IN EYES: P305 + P351 + P338 - Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 - If eye irritation

persists: P337 + P313 - Get medical advice or attention.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all

local, regional, national and international regulations.



**Hazardous ingredients** bornan-2-one

Eucalyptus globulus, ext.

anethole

(R)-p-mentha-1,8-diene

cineole

4-methylpentan-2-one

dipentene pin-2(3)-ene linalool pin-2(10)-ene

p-mentha-1,4(8)-diene

Supplemental label elements Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures

Not applicable.

**Special packaging requirements** 

Containers to be fitted with child-resistant fastenings

Yes, applicable.

Tactile warning of danger Yes, applicable.

#### 2.3 Other hazards

and articles

for PBT or vPvB

according to Regulation (EC) No. 1907/2006,

**Annex XIII** 

Other hazards which do

not result in classification

Product meets the criteria: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

: None known.

# **SECTION 3: Composition/information on ingredients**

3.2 Mixtures Mixture

| Product/ingredient name | Identifiers   | %             | Classification   | Specific Conc. Limits, M-<br>factors and ATEs                       | Туре |
|-------------------------|---|---------------|--|---|------|
| bornan-2-one            | EC : 200-945-0<br>CAS : 76-22-2                       | >= 10 - <= 25 | Flam. Sol. 2, H228<br>Skin Sens. 1, H317<br>STOT RE 1, H372<br>Aquatic Chronic 4, H413 | -   | [1]  |
| cyclohexanol            | EC: 203-630-6<br>CAS: 108-93-0<br>Index: 603-009-00-3 | >= 10 - < 20  | Acute Tox. 4, H302<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>STOT SE 3, H335     | ATE [Oral] = 1.400 mg/kg<br>ATE [Inhalation (vapours)] = 11<br>mg/l | [1]  |

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|                           |  |              | (Respiratory tract irritation)  |                                      |         |
|---------------------------|--|--------------|---|--------------------------------------|---------|
| Eucalyptus globulus, ext. | EC: 283-406-2<br>CAS: 84625-32-1                       | > 0 - <= 3   | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411  | -                                    | [1]     |
| zinc neodecanoate         | EC : 248-370-4<br>CAS : 27253-29-8                     | > 0 - < 3    | Skin Corr. 1, H314<br>Eye Dam. 1, H318  | -                                    | [1]     |
| anethole                  | EC : 203-205-5<br>CAS : 104-46-1                       | > 0 - < 1    | Skin Sens. 1, H317  | -                                    | [1]     |
| (R)-p-mentha-1,8-diene    | EC: 227-813-5<br>CAS: 5989-27-5<br>Index: 601-096-00-2 | > 0 - < 1    | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1B, H317<br>Asp. Tox. 1, H304<br>Aquatic Acute 1, H400<br>Aquatic Chronic 3, H412 | M [Acute] = 1                        | [1]     |
| cineole                   | EC : 207-431-5<br>CAS : 470-82-6                       | > 0 - < 1    | Flam. Liq. 3, H226<br>Skin Sens. 1, H317  | -                                    | [1]     |
| 4-methylpentan-2-one      | EC: 203-550-1<br>CAS: 108-10-1<br>Index: 606-004-00-4  | > 0 - < 0,3  | Flam. Liq. 2, H225<br>Acute Tox. 4, H332<br>Eye Irrit. 2, H319<br>Carc. 2, H351<br>STOT SE 3, H336<br>(Narcotic effects)                  | ATE [Inhalation (vapours)] = 11 mg/l | [1] [2] |
| dipentene                 | EC: 205-341-0<br>CAS: 138-86-3<br>Index: 601-029-00-7  | > 0 - <= 0,3 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                       | M [Acute] = 1<br>M [Chronic] = 1     | [1]     |
| pin-2(3)-ene              | EC : 201-291-9<br>CAS : 80-56-8                        | > 0 - <= 0,3 | Flam. Liq. 3, H226<br>Skin Sens. 1, H317<br>Asp. Tox. 1, H304<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                         | M [Acute] = 1<br>M [Chronic] = 1     | [1]     |
| linalool                  | EC: 201-134-4<br>CAS: 78-70-6<br>Index: 603-235-00-2   | > 0 - <= 0,3 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1B, H317  | -                                    | [1]     |
| pin-2(10)-ene             | EC: 204-872-5<br>CAS: 127-91-3                         | > 0 - <= 0,3 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Skin Sens. 1, H317<br>Asp. Tox. 1, H304  | -                                    | [1]     |



| EC: 209-578-0<br>CAS: 586-62-9 | Asp. Tox. 1, H304<br>Aquatic Acute 1, H400 | M [Acute] = 1<br>M [Chronic] = 1 | [1] |
|--------------------------------|--|----------------------------------|-----|
|                                | Aquatic Chronic 1, H410                    |                                  |     |

See Section 16 for the full text of the H statements declared above. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### <u>Type</u>

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

# **SECTION 4: First aid measures**

# **4.1** Description of first aid measures

| 2 competent of mast and measures |   |  |
|----------------------------------|---|--|
| Eye contact                      | : | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.  |
| Inhalation                       | : | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.   |
| Skin contact                     | : | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.  |
| Ingestion                        | : | Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Protection of first-aiders       | : | No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.  |

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

# Over-exposure signs/symptoms



**Eye contact** : Adverse symptoms may include the following: pain or irritation,

watering, redness

**Inhalation** : No specific data.

**Skin contact**: Adverse symptoms may include the following: irritation, redness

**Ingestion** : No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist

immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

# **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

None known.

#### 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous combustion products** 

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides, metal oxide/oxides Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, phosphorus oxides, metal oxide/oxides

# **5.3** Advice for firefighters

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

# **SECTION 6: Accidental release measures**

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

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through



For emergency responders

spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- **6.2** Environmental precautions
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

# 6.3 Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

- : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- **6.4** Reference to other sections
- See Section 1 for emergency contact information.
   See Section 8 for information on appropriate personal protective equipment.
   See Section 13 for additional waste treatment information.

# **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

# 7.1 Precautions for safe handling

**Protective measures** 

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove



contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### **7.3** Specific end use(s)

**Recommendations** : Not available. **Industrial sector specific** : Not available.

solutions

# **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

#### 8.1 Control parameters

# Occupational exposure limits

| Product/ingredient name | Exposure limit values   |
|-------------------------|---|
| 4-methylpentan-2-one    | EU OEL (2000-06-01).  |
|                         | TWA 83 mg/m3 20 ppm   |
|                         | STEL 208 mg/m3 50 ppm   |
|                         | Legislative Decree No. 819/2008. Title IX. Protection from chemical |
|                         | agents, carcinogens and mutagens (2004-03-01).                      |
|                         | TWA 83 mg/m3 20 ppm   |
|                         | STEL 208 mg/m3 50 ppm   |
|                         |   |

#### **Biological exposure indices**

No exposure indices known.

# Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.



# **DNELs/DMELs**

| Product/ingredient name   | Type | Exposure   | Value                   | Population | Effects  |
|---------------------------|------|------------|-------------------------|------------|----------|
| cyclohexanol              | DNEL | Long term  | 1,43 mg/kg              | Workers    | Systemic |
|                           |      | Dermal     | bw/day                  |            |          |
|                           | DNEL | Long term  | 0,716 mg/kg             | General    | Systemic |
|                           |      | Dermal     | bw/day                  | population |          |
|                           | DNEL | Long term  | 0,716 mg/kg             | General    | Systemic |
|                           |      | Oral       | bw/day                  | population |          |
|                           | DNEL | Long term  | 40,3 mg/m <sup>3</sup>  | Workers    | Systemic |
|                           |      | Inhalation |                         |            |          |
|                           | DNEL | Long term  | 10 mg/m <sup>3</sup>    | General    | Systemic |
|                           |      | Inhalation |                         | population |          |
| bornan-2-one              | DNEL | Long term  | 4,3478                  | General    | Systemic |
|                           |      | Inhalation | mg/m³                   | population |          |
|                           | DNEL | Long term  | 17,6316                 | Workers    | Systemic |
|                           |      | Inhalation | mg/m³                   |            |          |
|                           | DNEL | Long term  | 5 mg/kg                 | General    | Systemic |
|                           |      | Dermal     | bw/day                  | population |          |
|                           | DNEL | Long term  | 5 mg/kg                 | General    | Systemic |
|                           |      | Oral       | bw/day                  | population |          |
|                           | DNEL | Long term  | 10 mg/kg                | Workers    | Systemic |
|                           |      | Dermal     | bw/day                  |            |          |
| Eucalyptus globulus, ext. | DNEL | Long term  | $3,52 \text{ mg/m}^3$   | Workers    | Systemic |
|                           |      | Inhalation |                         |            |          |
|                           | DNEL | Long term  | 1 mg/kg                 | Workers    | Systemic |
|                           |      | Dermal     | bw/day                  |            |          |
|                           | DNEL | Long term  | 0,5 mg/kg               | General    | Systemic |
|                           |      | Dermal     | bw/day                  | population |          |
|                           | DNEL | Long term  | 0,5 mg/kg               | General    | Systemic |
|                           |      | Oral       | bw/day                  | population |          |
|                           | DNEL | Long term  | $0.87 \text{ mg/m}^3$   | General    | Systemic |
|                           |      | Inhalation |                         | population |          |
| zinc neodecanoate         | DNEL | Long term  | 1,1 mg/kg               | General    | Systemic |
|                           |      | Dermal     | bw/day                  | population |          |
|                           | DNEL | Long term  | 1,1 mg/kg               | General    | Systemic |
|                           |      | Dermal     | bw/day                  | population |          |
|                           | DNEL | Long term  | 25,93 mg/m <sup>3</sup> | Workers    | Systemic |
|                           | DNE  | Inhalation | 25.02 / 2               | XX7 1      | g        |
|                           | DNEL | Long term  | 25,93 mg/m <sup>3</sup> | Workers    | Systemic |
|                           | DNE  | Inhalation | 7.67 / 2                |            | g        |
|                           | DNEL | Long term  | 7,67 mg/m <sup>3</sup>  | General    | Systemic |
|                           | DNE  | Inhalation | 7.67 / 2                | population | G .t .   |
|                           | DNEL | Long term  | 7,67 mg/m <sup>3</sup>  | General    | Systemic |
|                           | DNE  | Inhalation | 2.21                    | population | Contant  |
|                           | DNEL | Long term  | 2,21 mg/kg              | Workers    | Systemic |
|                           | DNIE | Dermal     | bw/day                  | XX71 .     | G        |
|                           | DNEL | Long term  | 2,21 mg/kg              | Workers    | Systemic |
|                           | DNIE | Dermal     | bw/day                  | C 1        | G        |
|                           | DNEL | Long term  | 2,21 mg/kg              | General    | Systemic |
|                           | DNIE | Oral       | bw/day                  | population | G        |
|                           | DNEL | Long term  | 2,21 mg/kg              | General    | Systemic |



|                        |      | Oral       | bw/day                  | population |           |
|------------------------|------|------------|-------------------------|------------|-----------|
|                        | DNEL | Long term  | 1,1 mg/kg               | General    | Systemic  |
|                        |      | Dermal     | bw/day                  | population | 2,3333333 |
|                        | DNEL | Long term  | 25,93 mg/m <sup>3</sup> | Workers    | Systemic  |
|                        |      | Inhalation |                         |            |           |
|                        | DNEL | Long term  | 7,67 mg/m <sup>3</sup>  | General    | Systemic  |
|                        |      | Inhalation | , ,                     | population |           |
|                        | DNEL | Long term  | 2,21 mg/kg              | Workers    | Systemic  |
|                        |      | Dermal     | bw/day                  |            |           |
|                        | DNEL | Long term  | 2,21 mg/kg              | General    | Systemic  |
|                        |      | Oral       | bw/day                  | population |           |
| (R)-p-mentha-1,8-diene | DNEL | Long term  | 16,6 mg/m <sup>3</sup>  | General    | Systemic  |
|                        |      | Inhalation |                         | population |           |
|                        | DNEL | Long term  | 9,5 mg/kg               | Workers    | Systemic  |
|                        |      | Dermal     | bw/day                  |            |           |
|                        | DNEL | Long term  | 4,8 mg/kg               | General    | Systemic  |
|                        |      | Dermal     | bw/day                  | population |           |
|                        | DNEL | Long term  | 4,8 mg/kg               | General    | Systemic  |
|                        |      | Oral       | bw/day                  | population |           |
|                        | DNEL | Long term  | 66,7 mg/m <sup>3</sup>  | Workers    | Systemic  |
|                        |      | Inhalation |                         |            |           |
| cineole                | DNEL | Long term  | 1 mg/kg                 | General    | Systemic  |
|                        |      | Dermal     | bw/day                  | population |           |
|                        | DNEL | Long term  | 600 mg/kg               | General    | Systemic  |
|                        |      | Oral       | bw/day                  | population |           |
|                        | DNEL | Long term  | 7,05 mg/m <sup>3</sup>  | Workers    | Systemic  |
|                        |      | Inhalation | , ,                     |            |           |
|                        | DNEL | Long term  | 2 mg/kg                 | Workers    | Systemic  |
|                        |      | Dermal     | bw/day                  |            |           |
|                        | DNEL | Long term  | 1,74 mg/m <sup>3</sup>  | General    | Systemic  |
|                        |      | Inhalation |                         | population |           |
| 4-methylpentan-2-one   | DNEL | Long term  | 4,2 mg/kg               | General    | Systemic  |
|                        |      | Oral       | bw/day                  | population |           |
|                        | DNEL | Short term | 208 mg/m <sup>3</sup>   | Workers    | Systemic  |
|                        |      | Inhalation |                         |            |           |
|                        | DNEL | Short term | 208 mg/m <sup>3</sup>   | Workers    | Local     |
|                        |      | Inhalation |                         |            |           |
|                        | DNEL | Long term  | 83 mg/m <sup>3</sup>    | Workers    | Systemic  |
|                        |      | Inhalation |                         |            |           |
|                        | DNEL | Long term  | 83 mg/m <sup>3</sup>    | Workers    | Local     |
|                        |      | Inhalation |                         |            |           |
|                        | DNEL | Long term  | 14,7 mg/m <sup>3</sup>  | General    | Systemic  |
|                        |      | Inhalation |                         | population |           |
|                        | DNEL | Long term  | 14,7 mg/m <sup>3</sup>  | General    | Local     |
|                        |      | Inhalation |                         | population |           |
|                        | DNEL | Long term  | 11,8 mg/kg              | Workers    | Systemic  |
|                        |      | Dermal     | bw/day                  |            |           |
|                        | DNEL | Short term | 155,2 mg/m <sup>3</sup> | General    | Systemic  |
|                        |      | Inhalation |                         | population |           |
|                        | DNEL | Short term | 155,2 mg/m <sup>3</sup> | General    | Local     |
|                        |      | Inhalation |                         | population |           |
| pin-2(3)-ene           | DNEL | Long term  | 0,225 mg/kg             | General    | Systemic  |
|                        |      | Dermal     | bw/day                  | population |           |



|                       | DNEL | Long term<br>Oral       | 0,225 mg/kg<br>bw/day   | General population | Systemic |
|-----------------------|------|-------------------------|-------------------------|--------------------|----------|
|                       | DNEL | Long term<br>Inhalation | 3,8 mg/m³               | Workers            | Systemic |
|                       | DNEL | Long term<br>Inhalation | 0,674 mg/m <sup>3</sup> | General population | Systemic |
|                       | DNEL | Long term<br>Dermal     | 0,542 mg/kg<br>bw/day   | Workers            | Systemic |
| linalool              | DNEL | Long term<br>Dermal     | 3 mg/cm <sup>2</sup>    | Workers            | Local    |
| p-mentha-1,4(8)-diene | DNEL | Long term<br>Inhalation | 3,6 mg/m³               | Workers            | Systemic |
|                       | DNEL | Long term<br>Inhalation | 0,9 mg/m³               | General population | Systemic |
|                       | DNEL | Long term<br>Dermal     | 0,52 mg/kg<br>bw/day    | Workers            | Systemic |
|                       | DNEL | Long term<br>Dermal     | 0,26 mg/kg<br>bw/day    | General population | Systemic |
|                       | DNEL | Long term<br>Oral       | 0,26 mg/kg<br>bw/day    | General population | Systemic |

### **PNECs**

No PNECs available.

#### **8.2** Exposure controls

**Appropriate engineering controls** 

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

# **Individual protection measures**

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : It is recommended to wear a hooded visor or protective visor combined with airtight goggles (ref. Standard EN 166).

**Skin protection** 

**Hand protection**: Protect hands with category III work gloves (ref. Standard EN 374).

For the final choice of the material of the work gloves it is necessary to consider: compatibility, degradation, breakage time and permeation. In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is not foreseeable. Gloves have a wear time that depends on the duration

and method of use.

**Body protection**: Personal protective equipment for the body should be selected based

on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks

involved and should be approved by a specialist before handling this



**Respiratory protection** 

product.

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. In case of exceeding the threshold value (e.g. TLV-TWA) of the substance or of one or more of the substances present in the product, it is recommended to wear a mask with type AX filter whose limit of use will be defined by the manufacturer (ref. . standard EN 14387). If there are gases or vapors of a different nature and / or gases or vapors with particles (aerosols, fumes, mists, etc.), combined filters must be provided. The use of respiratory protection means is necessary in case the technical measures adopted are not sufficient to limit the exposure of the worker to the threshold values taken into consideration. The protection offered by the masks is however limited. In the event that the substance in question is odorless or its olfactory threshold is higher than the relative TLV-TWA and in the event of an emergency, wear an open-circuit compressed air breathing apparatus (ref. Standard EN 137) or a self-contained breathing apparatus. outdoor air (ref. EN 138 standard). For the correct choice of the respiratory protection device, refer to the EN 529 standard.

**Environmental exposure controls** 

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

# 9.1 Information on basic physical and chemical properties

# **Appearance**

Physical state
Color
Brown.

Odor
Aromatic.
Odor threshold
Melting point/freezing point
Initial boiling point and boiling

: liquid [liquid]
Brown.

Aromatic.

Vot available.

10°C (< 50°F)

> 100°C (> 212°F)

range

Flammability : Non-flammable.

Lower and upper explosion limit : Lower: 61 %(V)

**Upper:** 67 %(V)

Flash point :  $64 \, ^{\circ}\text{C} \, (147 \, ^{\circ}\text{F})$ 



# Auto-ignition temperature

| Ingredient name             | Auto-ignition          |
|-----------------------------|------------------------|
|                             | temperature            |
| linalool                    | 235 °C (455 °F)        |
| dipentene                   | 236,67 °C (458,01 °F)  |
| (R)-p-mentha-1,8-diene      | 237 °C (459 °F)        |
| pin-2(3)-ene                | 255 °C (491 °F)        |
| cyclohexanol                | 300 °C (572 °F) 285 °C |
|                             | (545 °F)               |
| 4-methylcyclohexanol, mixed | 295 °C (563 °F)        |
| isomers                     |                        |
| cineole                     | 300 °C (572 °F)        |
| 3-methoxybutyl acetate      | 410 °C (770 °F)        |
| 1-isopropyl-4-methylbenzene | 435 °C (815 °F)        |
| Aromatic hydrocarbons, C10  | > 400 °C (> 752 °F)    |
| bornan-2-one                | 466 °C (871 °F)        |
| benzyl benzoate             | 480 °C (896 °F) 480 °C |
|                             | (896 °F)               |

**Decomposition temperature** : Not available.

**pH** : Product is non-polar/aprotic.

Viscosity : Dynamic : Not available.

**Kinematic :** 90 mm2/s @ 30 °C (86 °F)

**Solubility in water** : insoluble

Partition coefficient: n-

octanol/water

Not applicable. The product is a mixture



### Vapor pressure

Ingredient name Vapor pressure 4-methylpentan-2-one 21 hPa (@ 20 °C) (68 °F) pin-2(3)-ene 8,51 hPa (@ 25 °C) (77 °F) (EU A.4) 6,9 hPa (@ 20 °C) (68 °F) (OECD 104) 8,51 hPa (@ 25 °C) (77 (-)-pin-2(3)-ene °F) 6,9 hPa (@ 20 °C) (68 °F) pin-2(10)-ene 3,54 hPa (@ 25 °C) (77 °F) (EU A.4) 2,73 hPa (@ 20 °C) (68 °F) (OECD 104) (R)-p-mentha-1,8-diene 2 hPa (@ 24,85 °C) (76,73 1-isopropyl-4-methylbenzene 2 hPa (@ 20 °C) (68 °F) 1,33 hPa (@ 25 °C) (77 p-mentha-1,4(8)-diene °F) 1,01 hPa (@ 20 °C) (68 °F) 1,3 hPa (@ 20 °C) (68 °F) cyclohexanol 1,33 hPa 1,22 hPa (@ 20 °C) (68 cineole °F) Aromatic hydrocarbons,  $\overline{C10}$ 0,9 hPa (@ 20 °C) (68 °F) bornan-2-one 0,87 hPa (@ 25 °C) (77 °F) 0,27 hPa (@ 24,85 °C) linalool (76,73 °F) (OECD 104) 0,0997 hPa (@ 20 °C) (68 1,3-diisopropylbenzene °F) p-menth-1-en-8-yl acetate 0,03515 hPa (@ 23 °C) (73 °F) 0,0003053 hPa (@ 25 °C) benzyl benzoate (77 °F)

**Relative density** : 0,98

Density: 0,85 - 1,1 g/cm3Vapor density: Not available.Explosive properties: Not available.Oxidizing properties: Not available.

# Particle characteristics



Median particle size Not applicable.

# **SECTION 10: Stability and reactivity**

No specific test data related to reactivity available for this product or 10.1 Reactivity

its ingredients.

10.2 Chemical stability The product is stable.

10.3 Possibility of hazardous Under normal conditions of storage and use, hazardous reactions reactions

will not occur.

10.4 Conditions to avoid No specific data.

**10.5** Incompatible materials No specific data.

Under normal conditions of storage and use, hazardous 10.6 Hazardous decomposition decomposition products should not be produced. products

# **SECTION 11: Toxicological information**

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

# **Acute toxicity**

| Product/ingredient name | Result      | Species | Dose        | Exposure |
|-------------------------|-------------|---------|-------------|----------|
| cyclohexanol            |             |         |             |          |
|                         | LD50 Oral   | Rat     | 1.400 mg/kg | -        |
| anethole                |             |         |             |          |
|                         | LD50 Oral   | Rat     | 2.090 mg/kg | -        |
|                         | LD50 Dermal | Rabbit  | 5.000 mg/kg | -        |
| (R)-p-mentha-1,8-diene  |             |         |             |          |
|                         | LD50 Oral   | Rat     | 4.400 mg/kg | -        |
|                         | LD50 Dermal | Rabbit  | 5.000 mg/kg | -        |
| cineole                 |             |         |             |          |
|                         | LD50 Oral   | Rat     | 2.480 mg/kg | -        |
| 4-methylpentan-2-one    |             |         |             | •        |
|                         | LD50 Oral   | Rat     | 2.080 mg/kg | -        |
| dipentene               | •           | •       |             | •        |
| •                       | LD50 Oral   | Rat     | 5.300 mg/kg | -        |
| pin-2(3)-ene            |             | •       |             | •        |
|                         | LD50 Oral   | Rat     | 3.700 mg/kg | -        |
|                         | LD50 Dermal | Rabbit  | 5.000 mg/kg | -        |
| linalool                | •           | •       |             | •        |
|                         | LD50 Oral   | Rat     | 2.790 mg/kg | -        |
|                         | LD50 Dermal | Rabbit  | 5.610 mg/kg | -        |
|                         | LD50 Dermal | Rat     | 5.610 mg/kg | -        |
| p-mentha-1,4(8)-diene   |             |         |             |          |

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|               | LD50 Oral   | Rat    | 4.390 mg/kg | - |
|---------------|-------------|--------|-------------|---|
| pin-2(10)-ene |             |        |             |   |
|               | LD50 Oral   | Rat    | 4.700 mg/kg | - |
|               | LD50 Dermal | Rabbit | 5.000 mg/kg | - |

**Conclusion/Summary** : Not available.

# **Acute toxicity estimates**

| Product/ingredient name | Oral            | Dermal     | Inhalation<br>(gases) | Inhalation<br>(vapors) | Inhalation<br>(dusts and<br>mists) |
|-------------------------|-----------------|------------|-----------------------|------------------------|------------------------------------|
| HTL000031-H009          | 8756,2<br>mg/kg | N/A        | N/A                   | 68,8 mg/l              | N/A                                |
| cyclohexanol            | 1400 mg/kg      | N/A        | N/A                   | 11 mg/l                | N/A                                |
| anethole                | 2090 mg/kg      | 5000 mg/kg | N/A                   | N/A                    | N/A                                |
| (R)-p-mentha-1,8-diene  | 4400 mg/kg      | 5000 mg/kg | N/A                   | N/A                    | N/A                                |
| cineole                 | 2480 mg/kg      | N/A        | N/A                   | N/A                    | N/A                                |
| 4-methylpentan-2-one    | 500 mg/kg       | N/A        | N/A                   | 11 mg/l                | N/A                                |
| dipentene               | 5300 mg/kg      | N/A        | N/A                   | N/A                    | N/A                                |
| pin-2(3)-ene            | 3700 mg/kg      | 5000 mg/kg | N/A                   | N/A                    | N/A                                |
| linalool                | 2790 mg/kg      | 5610 mg/kg | N/A                   | N/A                    | N/A                                |
| p-mentha-1,4(8)-diene   | 4390 mg/kg      | N/A        | N/A                   | N/A                    | N/A                                |
| pin-2(10)-ene           | 4700 mg/kg      | 5000 mg/kg | N/A                   | N/A                    | N/A                                |

# Irritation/Corrosion

| Product/ingredient name | Result      | Species | Score | Exposure | Observation |
|-------------------------|-------------|---------|-------|----------|-------------|
| cyclohexanol            | Skin -      | Rabbit  | -     | 24 hrs   | -           |
|                         | Moderate    |         |       |          |             |
|                         | irritant    |         |       |          |             |
|                         | Skin - Mild | Rabbit  | -     | 24 hrs   | -           |
|                         | irritant    |         |       |          |             |
|                         | Eyes -      | Rabbit  | -     | 24 hrs   | -           |
|                         | Moderate    |         |       |          |             |
|                         | irritant    |         |       |          |             |
|                         | Eyes - Mild | Rabbit  | -     | 24 hrs   | -           |
|                         | irritant    |         |       |          |             |
|                         | Eyes -      | Rabbit  | -     |          | -           |
|                         | Moderate    |         |       |          |             |
|                         | irritant    |         |       |          |             |
| (R)-p-mentha-1,8-diene  | Skin - Mild | Rabbit  | -     | 24 hrs   | -           |
|                         | irritant    |         |       |          |             |
| 4-methylpentan-2-one    | Eyes -      | Rabbit  | -     | 24 hrs   | -           |
|                         | Moderate    |         |       |          |             |
|                         | irritant    |         |       |          |             |
|                         | Skin - Mild | Rabbit  | -     | 24 hrs   | -           |
|                         | irritant    |         |       |          |             |



|                       | 1 -           | D 111      |   | 1      |   |
|-----------------------|---------------|------------|---|--------|---|
|                       | Eyes -        | Rabbit     | - |        | - |
|                       | Severe        |            |   |        |   |
|                       | irritant      |            |   |        |   |
| dipentene             | Skin -        | Rabbit     | - | 24 hrs | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
| pin-2(3)-ene          | Skin -        | Rabbit     | - | 24 hrs | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
|                       | Skin - Severe | Man        | - |        | - |
|                       | irritant      |            |   |        |   |
| linalool              | Eyes -        | Rabbit     | - | 1 hrs  | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
|                       | Skin - Mild   | Man        | - | 48 hrs | - |
|                       | irritant      |            |   |        |   |
|                       | Skin - Mild   | Rabbit     | - | 24 hrs | - |
|                       | irritant      |            |   |        |   |
|                       | Skin - Severe | Rabbit     | - | 24 hrs | - |
|                       | irritant      |            |   |        |   |
|                       | Eyes -        | Rabbit     | - |        | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
|                       | Skin -        | Guinea pig | - | 24 hrs | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
|                       | Skin - Mild   | Human      | - | 72 hrs | - |
|                       | irritant      |            |   |        |   |
| p-mentha-1,4(8)-diene | Skin -        | Rabbit     | - | 24 hrs | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
| pin-2(10)-ene         | Skin -        | Rabbit     | - | 24 hrs | - |
|                       | Moderate      |            |   |        |   |
|                       | irritant      |            |   |        |   |
|                       | · ·           | 1          |   | l .    |   |

Conclusion/Summary

Skin: Not available.Eyes: Not available.Respiratory: Not available.

# **Sensitization**

Conclusion/Summary

Skin: Not available.Respiratory: Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

**Reproductive toxicity** 



**Conclusion/Summary** : Not available.

**Teratogenicity** 

**Conclusion/Summary** : Not available.

# Specific target organ toxicity (single exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs                |
|-------------------------|------------|-------------------|------------------------------|
| cyclohexanol            | Category 3 | -                 | Respiratory tract irritation |

# Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| bornan-2-one            | Category 1 | _                 | _             |

# **Aspiration hazard**

| Product/ingredient name | Result                         |
|-------------------------|--------------------------------|
| (R)-p-mentha-1,8-diene  | ASPIRATION HAZARD - Category 1 |
| pin-2(3)-ene            | ASPIRATION HAZARD - Category 1 |
| p-mentha-1,4(8)-diene   | ASPIRATION HAZARD - Category 1 |
| pin-2(10)-ene           | ASPIRATION HAZARD - Category 1 |

**Information on the likely routes** 

of exposure

Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.

**Ingestion**: No known significant effects or critical hazards.

# Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following: pain or irritation,

watering, redness

**Inhalation** : No specific data.

**Skin contact** : Adverse symptoms may include the following: irritation, redness

**Ingestion** : No specific data.

# Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

# Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.



# Potential chronic health effects

**Conclusion/Summary** : Not available.

**General** : Causes damage to organs through prolonged or repeated exposure.

Once sensitized, a severe allergic reaction may occur when

subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.Mutagenicity: No known significant effects or critical hazards.Reproductive toxicity: No known significant effects or critical hazards.

11.2. Information on other hazards

**11.2.1 Endocrine disrupting properties** : Not available. **11.2.2 Other information** : Not available.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

| Product/ingredient name | Result                       | Species                     | Exposure |  |
|-------------------------|------------------------------|-----------------------------|----------|--|
| cyclohexanol            | •                            |                             |          |  |
|                         | Acute LC50 704 mg/l Fresh    | Fish - Pimephales promelas  | 96 h     |  |
|                         | water                        |                             |          |  |
| (R)-p-mentha-1,8-diene  |                              |                             |          |  |
|                         | Acute EC50 0,688 mg/l Fresh  | Fish - Pimephales promelas  | 96 h     |  |
|                         | water                        |                             |          |  |
|                         | Acute EC50 0,421 mg/l Fresh  | Daphnia - Daphnia magna     | 48 h     |  |
|                         | water                        |                             |          |  |
| cineole                 |                              |                             |          |  |
|                         | Acute LC50 102 mg/l Fresh    | Fish - Pimephales promelas  | 96 h     |  |
|                         | water                        |                             |          |  |
| 4-methylpentan-2-one    |                              |                             |          |  |
|                         | Acute LC50 505 mg/l Fresh    | Fish - Pimephales promelas  | 96 h     |  |
|                         | water                        |                             |          |  |
|                         | Chronic NOEC 168 mg/l Fresh  | Fish - Pimephales promelas  | 33 d     |  |
|                         | water                        |                             |          |  |
|                         | Chronic NOEC 78 mg/l Fresh   | Daphnia - Daphnia magna     | 21 d     |  |
|                         | water                        |                             |          |  |
| dipentene               |                              |                             |          |  |
|                         | Acute EC50 20,2 mg/l Fresh   | Fish - Pimephales promelas  | 96 h     |  |
|                         | water                        |                             |          |  |
|                         | Acute EC50 28,2 mg/l Fresh   | Daphnia - Daphnia magna     | 48 h     |  |
|                         | water                        |                             |          |  |
|                         | Acute IC50 13,798 mg/l Fresh | Algae - Pseudokirchneriella | 96 h     |  |
|                         | water                        | subcapitata                 |          |  |
| pin-2(3)-ene            |                              |                             |          |  |
|                         | Acute LC50 5,28 mg/l Fresh   | Fish - Lepomis macrochirus  | 96 h     |  |
|                         | water                        |                             |          |  |
|                         | Acute LC50 41 mg/l Fresh     | Daphnia - Daphnia magna     | 48 h     |  |
|                         | water                        |                             |          |  |
| linalool                |                              |                             |          |  |



|                       | Acute LC50 28,8 mg/l Fresh water | Fish - Oncorhynchus mykiss  | 96 h |
|-----------------------|----------------------------------|-----------------------------|------|
|                       | Acute EC50 36,7 mg/l Fresh       | Daphnia - Daphnia magna     | 48 h |
|                       | water                            |                             |      |
| p-mentha-1,4(8)-diene |                                  |                             |      |
|                       | Acute EC50 0,763 mg/l Fresh      | Fish - Pimephales promelas  | 96 h |
|                       | water                            |                             |      |
|                       | Acute EC50 1,38 mg/l Fresh       | Daphnia - Daphnia magna     | 48 h |
|                       | water                            |                             |      |
|                       | Chronic NOEC 0,03 - 0,95 mg/l    | Algae - Pseudokirchneriella | 96 h |
|                       | Fresh water                      | subcapitata                 |      |
| pin-2(10)-ene         |                                  |                             |      |
|                       | Chronic NOEC 0,058 mg/l          | Fish - Oncorhynchus mykiss  | 60 d |
|                       | Fresh water                      | -                           |      |

**Conclusion/Summary** : Not available.

# 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

# 12.3 Bioaccumulative potential

| Product/ingredient name | LogPow  | BCF                    | Potential |
|-------------------------|---------|------------------------|-----------|
| cyclohexanol            | 1,21,25 | -                      | low       |
| bornan-2-one            | 2,38    | -                      | low       |
| zinc neodecanoate       | -       | 60.960,00<br>60.960,00 | high      |
| (R)-p-mentha-1,8-diene  | 4,57    | -                      | high      |
| cineole                 | 2,74    | -                      | low       |
| 4-methylpentan-2-one    | 1,9     | -                      | low       |
| dipentene               | 4,57    | -                      | high      |
| pin-2(3)-ene            | 4,487   | -                      | high      |
| linalool                | 2,84    | -                      | low       |
| p-mentha-1,4(8)-diene   | 4,47    | -                      | high      |
| pin-2(10)-ene           | 4,425   | -                      | high      |

# 12.4 Mobility in soil

**Soil/water partition coefficient** : Not available.

(KOC)

**Mobility** : Not available.

# 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Endocrine disrupting properties** : Not available.

**12.7 Other adverse effects** : No known significant effects or critical hazards.



# **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 13.1 Waste treatment methods

#### **Product**

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste

The classification of the product may meet the criteria for a

hazardous waste.

#### **Packaging**

Methods of disposal

: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

| Type of packaging | European waste catalogue (EWC) |   |  |
|-------------------|--------------------------------|---|--|
|                   | 15 01 10*                      | packaging containing residues of or contaminated by |  |
|                   |                                | hazardous substances                                |  |

**Special precautions** 

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

|                                    | ADR/RID        | IMDG           | IATA           |
|------------------------------------|----------------|----------------|----------------|
| 14.1 UN number                     | -              | -              | -              |
| 14.2 UN proper shipping name       | Not regulated. | Not regulated. | Not regulated. |
| 14.3 Transport<br>hazard class(es) | -              | -              | -              |
| 14.4 Packing group                 | -              | -              | -              |
| 14.5.<br>Environmental<br>hazards  | No.            | No.            | No.            |



**ADN** : The product is only regulated as a dangerous good when transported

in tank vessels.

IATA : The environmentally hazardous substance mark may appear if

required by other transportation regulations.

**14.6 Special precautions for user** : Transport within user's premises: always transport in closed

containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident

or spillage.

14.7 Transport in bulk according

to IMO instruments

Not available.

# **SECTION 15: Regulatory information**

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

### EU Regulation (EC) No. 1907/2006 (REACH)

# Annex XIV - List of substances subject to authorization

# Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

#### **Other EU regulations**

**Industrial emissions (integrated** 

Not listed

pollution prevention and control) - Air

Industrial emissions (integrated

Not listed

pollution prevention and control) - Water

Ozone depleting substances (1005/2009/EU)

None of the components are listed.

# Prior Informed Consent (PIC) (649/2012/EU)

None of the components are listed.

#### **Persistent Organic Pollutants**

None of the components are listed.

# **Seveso Directive**

This product is not controlled under the Seveso Directive.



# **National regulations**

D.Lgs. 152/06 : Not determined.

**International regulations** 

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

# **Chemical Weapons Convention List Schedule I Chemicals**

None of the components are listed.

# **Chemical Weapons Convention List Schedule II Chemicals**

None of the components are listed.

# **Chemical Weapons Convention List Schedule III Chemicals**

None of the components are listed.

#### **Montreal Protocol**

None of the components are listed.

#### **Stockholm Convention on Persistent Organic Pollutants**

#### **Annex A - Elimination - Production**

None of the components are listed.

#### **Annex A - Elimination - Use**

None of the components are listed.

### Annex B - Restriction - Production

None of the components are listed.

# Annex B - Restriction - Use

None of the components are listed.

# **Annex C - Unintentional - Production**

None of the components are listed.

# **Rotterdam Convention on Prior Informed Consent (PIC)**

# Rotterdam Convention on Prior Informed Consent (PIC) - Industrial

None of the components are listed.

### Rotterdam Convention on Prior Informed Consent (PIC) - Pesticide

None of the components are listed.

#### Rotterdam Convention on Prior Informed Consent (PIC) -Severely hazardous pesticide

None of the components are listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

# **Heavy metals - Annex 1**

None of the components are listed.

# **POPs - Annex 1 - Production**



None of the components are listed.

#### POPs - Annex 1 - Use

None of the components are listed.

#### POPs - Annex 2

None of the components are listed.

#### POPs - Annex 3

None of the components are listed.

#### **Inventory list**

Australia: Not determined.Canada: Not determined.China: Not determined.

Eurasian Economic Union
 Japan
 Sussian Federation inventory: Not determined.
 Japan inventory (CSCL): Not determined.
 Japan inventory (ISHL): Not determined.

New ZealandNot determined.PhilippinesNot determined.Republic of KoreaNot determined.TaiwanNot determined.ThailandNot determined.TurkeyNot determined.

**United States** : At least one component is inactive.

Viet Nam : Not determined.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety

Assessments are still required.

# **SECTION 16: Other information**

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation

[Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

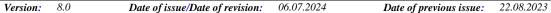
PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification      | Justification      |
|---------------------|--------------------|
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319  | Calculation method |
| Skin Sens. 1, H317  | Calculation method |





| STOT RE 1, H372         | Calculation method |
|-------------------------|--------------------|
| Aquatic Chronic 3, H412 | Calculation method |

# Full text of abbreviated H statements

| H225 | Highly flammable liquid and vapor.                                |
|------|---|
| H226 | Flammable liquid and vapor.                                       |
| H228 | Flammable solid.  |
| H302 | Harmful if swallowed.   |
| H304 | May be fatal if swallowed and enters airways.                     |
| H314 | Causes severe skin burns and eye damage.                          |
| H315 | Causes skin irritation.   |
| H317 | May cause an allergic skin reaction.                              |
| H318 | Causes serious eye damage.  |
| H319 | Causes serious eye irritation.                                    |
| H332 | Harmful if inhaled.   |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if |
|      | inhaled.  |
| H335 | May cause respiratory irritation.                                 |
| H341 | Suspected of causing genetic defects.                             |
| H360 | May damage fertility or the unborn child.                         |
| H372 | Causes damage to organs through prolonged or repeated exposure.   |
| 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.                |
| H413 | May cause long lasting harmful effects to aquatic life.           |

# Full text of classifications [CLP/GHS]

| Acute Tox. 4      | ACUTE TOXICITY - Category 4                          |
|-------------------|--|
| Aquatic Acute 1   | AQUATIC HAZARD (ACUTE) - Category 1                  |
| Aquatic Chronic 1 | AQUATIC HAZARD (LONG-TERM) - Category 1              |
| Aquatic Chronic 2 | AQUATIC HAZARD (LONG-TERM) - Category 2              |
| Aquatic Chronic 3 | AQUATIC HAZARD (LONG-TERM) - Category 3              |
| Aquatic Chronic 4 | AQUATIC HAZARD (LONG-TERM) - Category 4              |
| Asp. Tox. 1       | ASPIRATION HAZARD - Category 1                       |
| Eye Dam. 1        | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1      |
| Eye Irrit. 2      | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2      |
| Flam. Liq. 2      | FLAMMABLE LIQUIDS - Category 2                       |
| Flam. Liq. 3      | FLAMMABLE LIQUIDS - Category 3                       |
| Flam. Sol. 2      | FLAMMABLE SOLIDS - Category 2                        |
| Muta. 2           | GERM CELL MUTAGENICITY - Category 2                  |
| Repr. 1B          | TOXIC TO REPRODUCTION - Category 1B                  |
| Resp. Sens. 1     | RESPIRATORY SENSITIZATION - Category 1               |
| Skin Corr. 1      | SKIN CORROSION/IRRITATION - Category 1               |
| Skin Irrit. 2     | SKIN CORROSION/IRRITATION - Category 2               |
| Skin Sens. 1      | SKIN SENSITIZATION - Category 1                      |
| Skin Sens. 1B     | SKIN SENSITIZATION - Category 1B                     |
| STOT RE 1         | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - |
|                   | Category 1   |
| STOT SE 3         | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) -   |
|                   | Category 3   |



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