

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date 05-Oct-2021

Revision Number 1

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

### 1.1. Product identifier

**Product Name** TOP-GAN  
**Product Code(s)** TP.1007.H.1\_\_\_ISR

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

**Recommended use** Herbicide; For professional users only  
**Uses advised against** No information available

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

#### Manufacturer

Tapazol Chemical Works Ltd.  
1st HaSolela st.  
West. Ind. Zone  
Beit Shemesh, Israel 9905415  
Tel: +972-2-992-6040  
Fax: +972-2-9926050  
For further information, please contact [sds@tapazol.co.il](mailto:sds@tapazol.co.il)

### 1.4. Emergency telephone number

Emergency Telephone +972 4 777 1900

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

|   |                       |
|---|-----------------------|
| <b>Aspiration hazard</b>                                  | Category 1 - (H304)   |
| <b>Skin corrosion/irritation</b>                          | Category 2 - (H315)   |
| <b>Serious eye damage/eye irritation</b>                  | Category 1 - (H318)   |
| <b>Skin sensitization</b>                                 | Category 1 - (H317)   |
| <b>Carcinogenicity</b>                                    | Category 2 - (H351)   |
| <b>Reproductive toxicity</b>                              | Category 1B - (H360D) |
| <b>Specific target organ toxicity (single exposure)</b>   | Category 3 - (H336)   |
| <b>Specific target organ toxicity (repeated exposure)</b> | Category 2 - (H373)   |
| <b>Chronic aquatic toxicity</b>                           | Category 2 - (H411)   |

### 2.2. Label elements

Contains Solvent Naphtha (Petroleum), Heavy Aromatic, Naphthalene, 4-Nonylphenol, branched, ethoxylated, 2-ethylhexan-1-ol

**Signal word**

Danger

**Hazard statements**

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H336 - May cause drowsiness or dizziness

H360D - May damage the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

**Precautionary Statements - EU (§28, 1272/2008)**

P102 - Keep out of reach of children

P201 - Obtain special instructions before use

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

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

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P501 - Dispose of contents/ container to an approved waste disposal plant

**Additional information**

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

This product requires child resistant fastenings if supplied to the general public.

This product requires tactile warnings if supplied to the general public. This product requires child resistant fastenings when supplied to the general public unless the product is placed on the market in the form of aerosols or in a container with a sealed spray attachment.

**2.3. Other hazards****Endocrine Disruptor Information**

| Chemical name                        | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances |
|--------------------------------------|--|--|
| 4-Nonylphenol, branched, ethoxylated | Group III Chemical                       | -  |
| Naphthalene                          | Group III Chemical                       | -  |

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

| Chemical name              | EC No     | CAS No      | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|----------------------------|-----------|-------------|----------|---|
| Clodinafop-propargyl (ISO) | 600-662-6 | 105512-06-9 | 9-12     | Acute Tox. 4 (H302)   |

|   |           |             |       |   |
|---|-----------|-------------|-------|---|
|   |           |             |       | Skin Sens. 1 (H317)<br>STOT RE 2 (H373)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) M=1                             |
| Cloquintocet-mexyl  | 619-447-3 | 99607-70-2  | 2-4   | Skin Sens.1 (H317)<br>Acute Tox.4 (H332)<br>STOT RE 2 (H373)<br>Aquatic Acute 1 (H400)<br>M=1<br>Aquatic Chronic 1 (H410) M=1 |
| Solvent Naphtha (Petroleum), Heavy Aromatic   | 265-198-5 | 64742-94-5  | 59-66 | Asp. Tox. 1 (H304)<br>STOT SE 3 (H336)<br>Aquatic Chronic 2 (H411)  |
| 4-Nonylphenol, branched, ethoxylated  | -         | 127087-87-0 | 10-14 | Acute Tox. 4 (H302)<br>Acute Tox. 4 (H332)<br>Eye Dam. 1 (H318)<br>Aquatic Chronic 2 (H411)                                   |
| 1-Methylpyrrolidin-2-one  | 212-828-1 | 872-50-4    | 7-11  | Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>Repr. 1B (H360D)<br>STOT SE 3 (H335)   |
| Benzenesulfonic acid, C10-13-alkyl calcium salt   | -         | 932-231-6   | 1-2   | Skin irrit. 2 (H315)<br>Eye dam.1 (H318)<br>Aquatic Chronic 3 (H412)  |
| 2-ethylhexan-1-ol   | 203-234-3 | 104-76-7    | 0.5-2 | Skin irrit. 2 (H315)<br>Eye Irrit.2 (H319)<br>Acute Tox.4 (H332)<br>Stot SE(H335)   |
| Naphthalene   | 202-049-5 | 91-20-3     | <0.6  | Acute Tox. 4 (H302)<br>Carc. 2 (H351)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)                                   |
| Poly(oxy-1,2-ethanediyl), $\alpha$ -hydr o- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated | -         | 25322-68-3  | 0.38  | Not classified  |

**Full text of H- and EUH-phrases: see section 16**

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name                        | CAS No      | SVHC candidates |
|--------------------------------------|-------------|-----------------|
| 4-Nonylphenol, branched, ethoxylated | 127087-87-0 | X               |
| 1-Methylpyrrolidin-2-one             | 872-50-4    | X               |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General advice

IF exposed or concerned: Get medical advice/attention. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

#### Inhalation

Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is

|   |  |
|---|--|
|   | difficult, (trained personnel should) give oxygen. Get immediate medical advice/attention. Delayed pulmonary edema may occur. Remove to fresh air.   |
| <b>Eye contact</b>                        | Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.   |
| <b>Skin contact</b>                       | May cause an allergic skin reaction. Wash off immediately with soap and plenty of water for at least 15 minutes. If symptoms persist, call a physician.  |
| <b>Ingestion</b>                          | ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical advice/attention. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.   |
| <b>Self-protection of the first aider</b> | Do not breathe vapor or mist. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. See section 8 for more information. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. |

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

|                 |  |
|-----------------|--|
| <b>Symptoms</b> | Burning sensation. Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. |
|-----------------|--|

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

|                           |  |
|---------------------------|--|
| <b>Note to physicians</b> | May cause sensitization in susceptible persons. Treat symptomatically. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. |
|---------------------------|--|

### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

|                   |  |
|-------------------|--|
| <b>Small Fire</b> | Dry chemical, CO <sub>2</sub> , water spray or regular foam.   |
| <b>Large Fire</b> | Water spray, fog or regular foam<br>Dike fire-control water for later disposal<br>Move containers from fire area if you can do it without risk |

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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

**Specific hazards arising from the chemical** Product is or contains a sensitizer. May cause sensitization by skin contact.

#### 5.3. Advice for firefighters

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **SECTION 6: Accidental release measures**

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

**Personal precautions** Do not breathe vapor or mist. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

**Environmental precautions** Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

**Advice on safe handling** Do not breathe vapor or mist. Handle product only in closed system or provide appropriate exhaust ventilation. Remove contaminated clothing and shoes. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations** Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

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

**Storage Conditions** Store locked up. Keep out of the reach of children. Store away from other materials. Keep containers tightly closed in a dry, cool and well-ventilated place.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

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

### 8.1. Control parameters

#### Exposure Limits

| Chemical name                        | European Union                           | Austria                                  | Belgium                                  | Netherlands   | Bulgaria                                   |
|--------------------------------------|--|--|--|---|--|
| 1-Methylpyrrolidin-2-one<br>872-50-4 | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup> | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup> | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup> | TWA: 40 mg/m <sup>3</sup><br>STEL: 80 mg/m <sup>3</sup> | STEL: 20 ppm<br>STEL: 80 mg/m <sup>3</sup> |

|  |   |   |   |   |  |
|--|---|---|---|---|--|
|  | STEL: 20 ppm<br>STEL: 80 mg/m <sup>3</sup><br>* | STEL 20 ppm<br>STEL 80 mg/m <sup>3</sup><br>H*<br>Skin sensitizer                     | STEL: 20 ppm<br>STEL: 80 mg/m <sup>3</sup><br>*   | H*  | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup><br>K*   |
| 2-ethylhexan-1-ol<br>104-76-7  | -   | TWA: 1 ppm<br>TWA: 5.4 mg/m <sup>3</sup><br>STEL 2 ppm<br>STEL 10.8 mg/m <sup>3</sup> | TWA: 1 ppm<br>TWA: 5.4 mg/m <sup>3</sup><br>*   | TWA: 5.4 mg/m <sup>3</sup>  | TWA: 5.4 mg/m <sup>3</sup><br>TWA: 1 ppm   |
| Naphthalene<br>91-20-3   | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup>        | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup><br>H*  | TWA: 10 ppm<br>TWA: 53 mg/m <sup>3</sup><br>STEL: 15 ppm<br>STEL: 80 mg/m <sup>3</sup><br>* | TWA: 50 mg/m <sup>3</sup><br>STEL: 80 mg/m <sup>3</sup><br>H*                                 | STEL: 75.0 mg/m <sup>3</sup><br>TWA: 50.0 mg/m <sup>3</sup>  |
| Poly(oxy-1,2-ethanediyl),<br>α-hydro-ω-hydroxy-<br>Ethane-1,2-diol,<br>ethoxylated<br>25322-68-3 | -   | TWA: 1000 mg/m <sup>3</sup><br>STEL 4000 mg/m <sup>3</sup>                            | -   | -   | -  |
| <b>Chemical name</b>   | <b>Denmark</b>                                  | <b>Germany</b>  | <b>France</b>   | <b>United Kingdom</b>   | <b>Spain</b>   |
| 1-Methylpyrrolidin-2-one<br>872-50-4   | TWA: 5 ppm<br>TWA: 20 mg/m <sup>3</sup><br>H*   | TWA: 20 ppm<br>TWA: 82 mg/m <sup>3</sup><br>H*  | TWA: 40 mg/m <sup>3</sup><br>TWA: 10 ppm<br>STEL: 80 mg/m <sup>3</sup><br>STEL: 20 ppm<br>* | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup><br>STEL: 20 ppm<br>STEL: 80 mg/m <sup>3</sup><br>Sk* | TWA: 10 ppm<br>TWA: 40 mg/m <sup>3</sup><br>STEL: 20 ppm<br>STEL: 80 mg/m <sup>3</sup><br>vía dérmica* |
| 2-ethylhexan-1-ol<br>104-76-7  | TWA: 1 ppm<br>TWA: 5.4 mg/m <sup>3</sup><br>H*  | TWA: 10 ppm<br>TWA: 54 mg/m <sup>3</sup>  | TWA: 50 ppm<br>TWA: 270 mg/m <sup>3</sup>   | TWA: 1 ppm<br>TWA: 5.4 mg/m <sup>3</sup><br>STEL: 3 ppm<br>STEL: 16.2 mg/m <sup>3</sup>       | TWA: 1 ppm<br>TWA: 1.54 mg/m <sup>3</sup><br>vía dérmica*  |
| Naphthalene<br>91-20-3   | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup>        | TWA: 0.4 ppm<br>TWA: 2 mg/m <sup>3</sup><br>H*  | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup>  | -   | TWA: 10 ppm<br>TWA: 53 mg/m <sup>3</sup><br>STEL: 15 ppm<br>STEL: 80 mg/m <sup>3</sup><br>vía dérmica* |
| Poly(oxy-1,2-ethanediyl),<br>α-hydro-ω-hydroxy-<br>Ethane-1,2-diol,<br>ethoxylated<br>25322-68-3 | TWA: 1000 mg/m <sup>3</sup>                     | TWA: 200 mg/m <sup>3</sup><br>TWA: 1000 mg/m <sup>3</sup>                             | -   | -   | -  |

**Biological occupational exposure limits**

| Chemical name                        | European Union | Austria        | Bulgaria      | Croatia  | Czech Republic   |
|--------------------------------------|----------------|----------------|---------------|--|--|
| 1-Methylpyrrolidin-2-one<br>872-50-4 | -              | -              | -             | 20 mg/g Creatinine -<br>urine<br>(2-Hydroxy-N-methyl<br>succinimide) -<br>about 16 hours after<br>completion of the<br>work shift<br>70 mg/g Creatinine -<br>urine<br>(5-Hydroxy-N-methyl<br>l-2-pyrrolidone) - 2-4<br>times after the work<br>shift/break | -  |
| <b>Chemical name</b>                 | <b>Denmark</b> | <b>Finland</b> | <b>France</b> | <b>Germany</b>   | <b>Germany MAK</b>   |
| 1-Methylpyrrolidin-2-one<br>872-50-4 | -              | -              | -             | 150 mg/L (urine -<br>5-Hydroxy-N-methyl<br>-2-pyrrolidone end<br>of shift)<br>150 mg/L - BAT   | 150 mg/L (urine -<br>5-Hydroxy-N-methyl<br>-2-pyrrolidone end<br>of shift) |

|   |  |  |   |  |   |
|---|--|--|---|--|---|
|   |  |  |   | (end of exposure or end of shift) urine  |   |
| Naphthalene<br>91-20-3                    | -  | -  | -   | 35 µg/L - BAR (end of exposure or end of shift) urine<br>35 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) urine | - |
| <b>Chemical name</b>                      | <b>Hungary</b>   | <b>Ireland</b>   | <b>Italy</b>  | <b>Italy REL</b>   |   |
| 1-Methylpyrrolidin-2-one<br>872-50-4      | -  | 20 mg/g Creatinine (urine -<br>2-Hydroxy-N-Methylsuccinimide morning after shift (8 hours))<br>70 mg/g Creatinine (urine -<br>5-Hydroxy-N-methyl-2-pyrrolidone 2-4 hours after the end of the shift) | -   | 100 mg/L - urine (5-Hydroxy-N-methyl-2-pyrrolidone) - end of shift   |   |
| Naphthalene<br>91-20-3                    | -  | 4 µmol/mol Creatinine (urine - 1-Hydroxypyrene post shift)   | -   | - () - end of shift  |   |
| <b>Chemical name</b>                      | <b>Latvia</b>  | <b>Luxembourg</b>  | <b>Romania</b>                                      | <b>Slovakia</b>  |   |
| Clodinafop-propargyl (ISO)<br>105512-06-9 | -  | -  | 5 mg/g Creatinine - urine (Fluorine) - end of shift | -  |   |
| Naphthalene<br>91-20-3                    | -  | -  | -   | 5.66 µg/L - urine (1-Hydroxypyrene) - end of exposure or work shift  |   |
| <b>Chemical name</b>                      | <b>Slovenia</b>  | <b>Spain</b>   | <b>Switzerland</b>                                  | <b>United Kingdom</b>  |   |
| 1-Methylpyrrolidin-2-one<br>872-50-4      | 150 mg/L - urine (5-Hydroxy-N-methyl-2-pyrrolidone) - at the end of the work shift | 20 mg/g Creatinine (urine -<br>2-Hydroxy-N-methylsuccinimide pre-shift)<br>70 mg/g Creatinine (urine -<br>5-Hydroxy-N-methyl-2-pyrrolidone between 2-4 hours after the final exposure)               | -   | -  |   |

## 8.2. Exposure controls

### Personal protective equipment

#### Eye/face protection

Tight sealing safety goggles.

#### Hand protection

Wear suitable gloves. Impervious gloves.

#### Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

#### Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

#### General hygiene considerations

Do not breathe vapor or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

Avoid contact with skin, eyes or clothing. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

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

Physical state                      Liquid  
Color                                    light to dark brown

| <u>Property</u>                        | <u>Values</u>      | <u>Remarks • Method</u> |
|--|--------------------|-------------------------|
| pH                                     |                    |                         |
| pH (as aqueous solution)               | 4 - 8              |                         |
| Melting point / freezing point         |                    |                         |
| Boiling point / boiling range          |                    |                         |
| Flash point                            | >70 °C             |                         |
| Evaporation rate                       | No data available. |                         |
| Flammability (solid, gas)              | No data available. |                         |
| Flammability Limit in Air              |                    |                         |
| Upper flammability or explosive limits | No data available. |                         |
| Lower flammability or explosive limits | No data available. |                         |
| Vapor pressure                         | No data available. |                         |
| Vapor density                          | No data available. |                         |
| Relative density                       | No data available. |                         |
| Water solubility                       | Forms an emulsion  |                         |
| Solubility(ies)                        | No data available. |                         |
| Partition coefficient                  | No data available. |                         |
| Autoignition temperature               | No data available. |                         |
| Decomposition temperature              |                    |                         |
| Kinematic viscosity                    | No data available. |                         |
| Dynamic viscosity                      | No data available. |                         |

### 9.2. Other information

Liquid Density                      0.9-1.0

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

### 10.2. Chemical stability

Stability                                      Stable under normal conditions.

#### Explosion data

    Sensitivity to mechanical impact    None.

    Sensitivity to static discharge      None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions    None under normal processing.

### 10.4. Conditions to avoid

Conditions to avoid                      Excessive heat.

### 10.5. Incompatible materials



**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Oral LD50** > 2000 mg/kg. Based on available data, the classification criteria are not met.  
**Dermal LD50** > 2000 mg/kg. Based on available data, the classification criteria are not met. No data available. Based on calculation method, the classification criteria are not met.

**Skin corrosion/irritation** Non-irritating to the skin. Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Eye Dam. 1 - H318. Classification based on calculation method.

**Respiratory or skin sensitization** Not a skin sensitizer. Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

| Chemical name              | European Union |
|----------------------------|----------------|
| Clodinafop-propargyl (ISO) | Not classified |
| Cloquintocet-mexyl         | Not classified |
| 1-Methylpyrrolidin-2-one   | Not classified |
| Naphthalene                | Not classified |

### Carcinogenicity

| Chemical name              | European Union |
|----------------------------|----------------|
| Clodinafop-propargyl (ISO) | Not classified |
| Cloquintocet-mexyl         | Not classified |
| 1-Methylpyrrolidin-2-one   | Not classified |
| Naphthalene                | Carc. 2 (H351) |

### Reproductive toxicity

| Chemical name              | European Union   |
|----------------------------|------------------|
| Clodinafop-propargyl (ISO) | Not classified   |
| Cloquintocet-mexyl         | Not classified   |
| 1-Methylpyrrolidin-2-one   | Repr. 1B (H360D) |
| Naphthalene                | Not classified   |

**STOT - single exposure** Cat 3 (H336) - May cause drowsiness or dizziness. [Solvent Naphtha (Petroleum), Heavy Aromatic].

**STOT - repeated exposure** Cat 2 (H373) - May cause damage to organs through prolonged or repeated exposure. [Clodinafop-propargyl (ISO)], [Cloquintocet-mexyl].

**Aspiration hazard** H304 - May be fatal if swallowed and enters airways. [Solvent Naphtha (Petroleum), Heavy Aromatic].

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** H411 - Toxic to aquatic life with long lasting effects.  
 Classification based on calculation method.

| Chemical name              | Algae/aquatic plants           | Fish                                 | Toxicity to microorganisms | Crustacea                          |
|----------------------------|--------------------------------|--------------------------------------|----------------------------|------------------------------------|
| Clodinafop-propargyl (ISO) | Acute toxicity: EC50 > 3.9 ppm | Acute toxicity: LC50/EC50 = 0.21 ppm | -                          | Acute toxicity: LC50/EC50 >2.0 ppm |

|                    |   |   |   |  |
|--------------------|---|---|---|--|
|                    | Chronic toxicity: No data available                                     | Chronic toxicity 21-Day NOEC = 0.15 mg/l                              |   | Chronic toxicity NOEC 0.23 mg/l  |
| Cloquintocet-mexyl | Acute toxicity: EC50 = 0.63 mg/l<br>Chronic toxicity: No data available | Acute toxicity: LC50 = 76 mg/l<br>Chronic toxicity: No data available | - | Acute toxicity: EC50 = 100 mg/l<br>Chronic toxicity: No data available |

**12.2. Persistence and degradability**

**Persistence and degradability** Low persistence [Clodinafop-propargyl].

**12.3. Bioaccumulative potential**

**Bioaccumulation** There is no data for this product.

**Bioconcentration factor (BCF)** No data available [Clodinafop-propargyl]

**Component Information**

| Chemical name                               | Partition coefficient |
|---|-----------------------|
| Solvent Naphtha (Petroleum), Heavy Aromatic | 2.9 - 6.1             |
| 1-Methylpyrrolidin-2-one                    | -0.46                 |
| 2-ethylhexan-1-ol                           | 3.1                   |
| Naphthalene                                 | 3.6                   |

**12.4. Mobility in soil****12.5. Results of PBT and vPvB assessment****PBT and vPvB assessment**

| Chemical name  | PBT and vPvB assessment                                       |
|--|---|
| Cloquintocet-mexyl   | The substance is not PBT / vPvB                               |
| Solvent Naphtha (Petroleum), Heavy Aromatic  | The substance is not PBT / vPvB                               |
| 4-Nonylphenol, branched, ethoxylated   | The substance is not PBT / vPvB                               |
| 1-Methylpyrrolidin-2-one   | The substance is not PBT / vPvB PBT assessment does not apply |
| 2-ethylhexan-1-ol  | The substance is not PBT / vPvB                               |
| Naphthalene  | The substance is not PBT / vPvB                               |
| Poly(oxy-1,2-ethanediyl), $\alpha$ -hydro- $\omega$ -hydroxy- Ethane-1,2-diol, ethoxylated | The substance is not PBT / vPvB                               |

**12.6. Other adverse effects****Endocrine Disruptor Information**

| Chemical name                        | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disrupters - Evaluated Substances |
|--------------------------------------|--|--|
| 4-Nonylphenol, branched, ethoxylated | Group III Chemical                       | -  |
| Naphthalene                          | Group III Chemical                       | -  |

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

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**SECTION 14: Transport information****IMDG**

|  |  |
|--|--|
| 14.1 UN number   | 3082   |
| 14.2 UN proper shipping name   | Environmentally hazardous substance, liquid, n.o.s. [Clodinafop-propargyl (ISO), Cloquintocet-mexyl] |
| 14.3 Transport hazard class(es)  | 9  |
| 14.4 Packing group   | III  |
| 14.5 Marine pollutant  | Yes  |
| Environmental hazards  | Yes  |
| 14.6 Special precautions for user  |  |
| Special Provisions   | None   |
| 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code |  |

**RID**

|                                   |  |
|-----------------------------------|--|
| 14.1 UN number                    | 3082   |
| 14.2 UN proper shipping name      | Environmentally hazardous substance, liquid, n.o.s. [Clodinafop-propargyl (ISO), Cloquintocet-mexyl] |
| 14.3 Transport hazard class(es)   | 9  |
| 14.4 Packing group                | III  |
| 14.5 Environmental hazards        | Yes  |
| 14.6 Special precautions for user |  |
| Special Provisions                | None   |

**ADR**

|                                   |  |
|-----------------------------------|--|
| 14.1 UN number                    | 3082   |
| 14.2 UN proper shipping name      | Environmentally hazardous substance, liquid, n.o.s. [Clodinafop-propargyl (ISO), Cloquintocet-mexyl] |
| 14.3 Transport hazard class(es)   | Not regulated  |
| 14.4 Packing group                | III  |
| 14.5 Environmental hazards        | Yes  |
| 14.6 Special precautions for user |  |
| Special Provisions                | None   |

**IATA**

|                                   |  |
|-----------------------------------|--|
| 14.1 UN number                    | 3082   |
| 14.2 UN proper shipping name      | Environmentally hazardous substance, liquid, n.o.s. [Clodinafop-propargyl (ISO), Cloquintocet-mexyl] |
| 14.3 Transport hazard class(es)   | 9  |
| 14.4 Packing group                | III  |
| 14.5 Environmental hazards        | Yes  |
| 14.6 Special precautions for user |  |
| Special Provisions                | None   |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

| Chemical name   | French RG number | Title |
|---|------------------|-------|
| Solvent Naphtha (Petroleum), Heavy Aromatic<br>64742-94-5 | RG 84            | -     |
| 1-Methylpyrrolidin-2-one<br>872-50-4                      | RG 84            | -     |

**Germany****Water hazard class (WGK)**

Obviously hazardous to water (WGK 2)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name                                      | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|--|---|--|
| 4-Nonylphenol, branched, ethoxylated - 127087-87-0 |   | X  |
| 1-Methylpyrrolidin-2-one - 872-50-4                | 72.<br>30.<br>71.                         |  |

#### Persistent Organic Pollutants

Not applicable

#### Export Notification requirements

This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

| Chemical name                                      | European Export/Import Restrictions per (EC) 689/2008 - Annex Number |
|--|--|
| 4-Nonylphenol, branched, ethoxylated - 127087-87-0 | I.1<br>I.2   |

#### Dangerous substance category per Seveso Directive (2012/18/EU)

H1 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

#### International Inventories

|                      |  |
|----------------------|--|
| <b>TSCA</b>          | Contact supplier for inventory compliance status |
| <b>DSL/NDSL</b>      | Contact supplier for inventory compliance status |
| <b>EINECS/ELINCS</b> | Contact supplier for inventory compliance status |
| <b>ENCS</b>          | Contact supplier for inventory compliance status |
| <b>IECSC</b>         | Contact supplier for inventory compliance status |
| <b>KECL</b>          | Contact supplier for inventory compliance status |
| <b>PICCS</b>         | Contact supplier for inventory compliance status |
| <b>AICS</b>          | Contact supplier for inventory compliance status |

#### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

#### 15.2. Chemical safety assessment

### SECTION 16: Other information

#### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

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  
 H335 - May cause respiratory irritation  
 H336 - May cause drowsiness or dizziness  
 H351 - Suspected of causing cancer  
 H360D - May damage the unborn child  
 H373 - May cause 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

**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: Exposure controls/personal protection**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | *    | Skin designation                 |

**Classification procedure**

H304 - Classification based on calculation method  
 H315 - Classification based on Plant Protection authority opinion in Israel  
 H317 - Classification based on Plant Protection authority opinion in Israel  
 H318 - Classification based on calculation method  
 H336 - Classification based on calculation method  
 H351 - Classification based on Plant Protection authority opinion in Israel  
 H360D - Classification based on calculation method  
 H373 - Classification based on calculation method  
 H411 - Classification based on calculation method

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

Revision date 05-Oct-2021

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information**

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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**