# Grazon Spot

| Version | Revision Date: | SDS Number: | Date of last issue: - |
|---|---|---|---|
| 0.1 | 12/8/2021 | 800080004762 | Date of first issue: 08.12.2021 |

Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

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

### 1.1 Product identifier

Trade name : Grazon Spot

Unique Identifier Formula (UIF) : DTJ4-F0X9-U00N-UHDY

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

Use of the Substance/Mixture : Plant Protection Product

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

**COMPANY IDENTIFICATION**
**Manufacturer/importer**
Corteva Agriscience UK Limited
CPC2 CAPITAL PARK
FULBOURN CAMBRIDGE - England - CB21 5XE
UNITED KINGDOM

**Customer Information Number** : +44 8006 89 8899
**E-mail address** : SDS@corteva.com

### 1.4 Emergency telephone number

24-Hour Emergency Contact : +44 161 88 41235
Local Emergency Contact : +44 161 88 41235

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008)**

| | |
|---|---|
| Flammable liquids, Category 3 | H226: Flammable liquid and vapour. |
| Aspiration hazard, Category 1 | H304: May be fatal if swallowed and enters airways. |
| Skin irritation, Category 2 | H315: Causes skin irritation. |
| Skin sensitisation, Sub-category 1B | H317: May cause an allergic skin reaction. |

| | |
|---|---|
| Eye irritation, Category 2 | H319: Causes serious eye irritation. |
| Specific target organ toxicity - single exposure, Category 3, Respiratory system | H335: May cause respiratory irritation. |
| Specific target organ toxicity - single exposure, Category 3, Central nervous system | H336: May cause drowsiness or dizziness. |
| Specific target organ toxicity - repeated exposure, Category 2, Kidney | H373: May cause damage to organs through prolonged or repeated exposure. |
| Short-term (acute) aquatic hazard, Category 1 | H400: Very toxic to aquatic life. |
| Long-term (chronic) aquatic hazard, Category 1 | H410: Very toxic to aquatic life with long lasting effects. |

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :

Signal word : Danger

Hazard statements :
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements :

**Prevention:**

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P391 Collect spillage.

**Disposal:**

P501 Dispose of contents/container to a licensed hazardous-

waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Components**

| Chemical name | CAS-No.<br>EC-No.<br>Index-No.<br>REACH Registration number | Classification | Concentration (% w/w) |
|---|---|---|---|
| Hydrocarbons, C9, aromatics | Not Assigned<br><br>01-2119455851-35 | Flam. Liq. 3; H226<br>STOT SE 3; H335 (Respiratory system)<br>STOT SE 3; H336 (Central nervous system)<br>Asp. Tox. 1; H304<br>Aquatic Chronic 2; H411 | >= 40 - < 50 |
| Triclopyr-2-butoxyethyl ester | 64700-56-7<br>265-024-8 | Acute Tox. 4; H302<br>Skin Sens. 1; H317<br>STOT RE 2; H373 (Kidney)<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br>_____<br>M-Factor (Acute aquatic toxicity): 10<br>M-Factor (Chronic aquatic toxicity): 10 | >= 30 - < 40 |
| Reaction mass of N,N- | Not Assigned | Skin Irrit. 2; H315 | >= 3 - < 10 |

| | | | |
|---|---|---|---|
| dimethyldecan-1-amide and N,N-dimethyloctanamide | 01-2119974115-37 | Eye Dam. 1; H318<br>STOT SE 3; H335 (Respiratory system) | |
| clopyralid (ISO) | 1702-17-6<br>216-935-4<br>607-231-00-1 | Eye Dam. 1; H318<br>Aquatic Chronic 1; H410<br>_____<br>M-Factor (Chronic aquatic toxicity): 10 | >= 3 - < 10 |
| Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts | 68953-96-8<br>273-234-6<br>01-2119964467-24 | Acute Tox. 4; H312<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>Aquatic Chronic 2; H411 | >= 2.5 - < 3 |
| Hydrocarbons, C10, aromatics, <1% naphthalene | 1189173-42-9<br>01-2119463583-34-0008, 01-2119463583-34-0009, 01-2119463583-34-0010 | STOT SE 3; H336 (Central nervous system)<br>Asp. Tox. 1; H304<br>Aquatic Chronic 2; H411 | >= 1 - < 2.5 |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

If inhaled : Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.
If breathing is difficult, oxygen should be administered by qualified personnel.

In case of skin contact : Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.
Suitable emergency safety shower facility should be available in work area.

In case of eye contact : Hold eyes open and rinse slowly and gently with water for 15-

20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

If swallowed : Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

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

None known.

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

Treatment : Maintain adequate ventilation and oxygenation of the patient.
If burn is present, treat as any thermal burn, after decontamination.
The decision of whether to induce vomiting or not should be made by a physician.
If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach.
No specific antidote.
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.
Skin contact may aggravate preexisting dermatitis.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam

Unsuitable extinguishing media : None known.

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

Specific hazards during firefighting : Exposure to combustion products may be a hazard to health.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.
Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.
Use water spray to cool unopened containers.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## SECTION 6: Accidental release measures

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

Personal precautions : Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

### 6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.
Discharge into the environment must be avoided.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

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

Methods for cleaning up : Clean up remaining materials from spill with suitable absorbant.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped,
Recovered material should be stored in a vented container.
The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.
Keep in suitable, closed containers for disposal.
Wipe up with absorbent material (e.g. cloth, fleece).
Neutralize with chalk, alkali solution or ammonia.
See Section 13, Disposal Considerations, for additional information.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Handle in accordance with good industrial hygiene and safety

practice.
Smoking, eating and drinking should be prohibited in the application area.
Take care to prevent spills, waste and minimize release to the environment.
Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

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

| | | |
|---|---|---|
| Requirements for storage areas and containers | : | Store in a closed container. Keep in properly labelled containers. Store in accordance with the particular national regulations. |
| Advice on common storage | : | Do not store near acids.<br>Strong oxidizing agents |
| Packaging material | : | Unsuitable material: None known. |

**7.3 Specific end use(s)**

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls**

**Engineering measures**

Use engineering controls to maintain airborne level below exposure limit requirements or guidelines.
If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation.
Local exhaust ventilation may be necessary for some operations.

**Personal protective equipment**

| | | |
|---|---|---|
| Eye protection | : | Use chemical goggles.<br>Chemical goggles should be consistent with EN 166 or equivalent. |
| Hand protection | | |
| Remarks | : | Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Styrene/butadiene rubber. Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good |

indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Skin and body protection : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator.
Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Liquid. |
| Colour | : | Yellow |
| Odour | : | Aromatic |
| Odour Threshold | : | No test data available |
| Melting point/range | : | Not applicable |
| Freezing point | | No test data available |
| Boiling point/boiling range | : | No test data available |
| Flammability | : | Not applicable to liquids |
| Upper explosion limit / Upper flammability limit | : | No test data available |

| | | |
|---|---|---|
| Lower explosion limit / Lower flammability limit | : | No test data available |
| Flash point | : | 55.1 °C<br>Method: Pensky-Martens Closed Cup ASTM D 93, closed cup |
| Auto-ignition temperature | : | No test data available |
| pH | : | 2.04 (20 °C)<br>Method: pH Electrode<br>(neat) |
| Solubility(ies) | | |
| Water solubility | : | emulsifiable |
| Vapour pressure | : | No test data available |
| Relative vapour density | : | No test data available |

**9.2 Other information**

| | | |
|---|---|---|
| Explosives | : | No |
| Oxidizing properties | : | No data available |
| Evaporation rate | : | No test data available |

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

Not classified as a reactivity hazard.

**10.2 Chemical stability**

No decomposition if stored and applied as directed.
Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

| | | |
|---|---|---|
| Hazardous reactions | : | Stable under recommended storage conditions.<br>No hazards to be specially mentioned.<br>May form explosive dust-air mixture. |

**10.4 Conditions to avoid**

| | | |
|---|---|---|
| Conditions to avoid | : | None known. |

**10.5 Incompatible materials**

| | | |
|---|---|---|
| Materials to avoid | : | None. |

**10.6 Hazardous decomposition products**

## SECTION 11: Toxicological information

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

**Acute toxicity**

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Remarks: Low toxicity if swallowed.<br>Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. |
| Acute inhalation toxicity | : | Remarks: Vapor concentrations are attainable which could be hazardous on single exposure.<br>May cause respiratory irritation and central nervous system depression.<br>Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. |
| Acute dermal toxicity | : | Remarks: Prolonged skin contact is unlikely to result in absorption of harmful amounts. |

**Components:**

**Hydrocarbons, C9, aromatics:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 3,500 mg/kg |
| Acute inhalation toxicity | : | Remarks: Vapor concentrations are attainable which could be hazardous on single exposure.<br>May cause respiratory irritation and central nervous system depression.<br>Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.<br><br>LC50 (Rat): > 10.2 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Assessment: The substance or mixture has no acute inhalation toxicity |
| Acute dermal toxicity | : | LD50 (Rabbit): > 3,160 mg/kg<br>Assessment: The substance or mixture has no acute dermal toxicity |

**Triclopyr-2-butoxyethyl ester:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 803 mg/kg |

Acute inhalation toxicity : LC50 (Rat): > 4.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: The LC50 value is greater than the Maximum Attainable Concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 3.551 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

**clopyralid (ISO):**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Symptoms: No deaths occurred at this concentration., The LC50 value is greater than the Maximum Attainable Concentration.
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute dermal toxicity

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Acute oral toxicity : Remarks: Low toxicity if swallowed.
Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD 401 or equivalent
Symptoms: No deaths occurred at this concentration.
Assessment: The substance or mixture has no acute oral toxicity

Remarks: For similar material(s):

Acute dermal toxicity : Remarks: Prolonged or widespread skin contact may result in absorption of potentially harmful amounts.

LD50 (Rat, male and female): > 1,000 - < 1,600 mg/kg
Method: OECD 402 or equivalent
Remarks: For similar material(s):

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: For similar material(s):

Acute inhalation toxicity : LC50 (Rat): > 4.688 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: For similar material(s):
Maximum attainable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: For similar material(s):

**Skin corrosion/irritation**

**Product:**

Result : Mild skin irritation
Remarks : Brief contact may cause moderate skin irritation with local redness.
May cause drying and flaking of the skin.

**Components:**

**Hydrocarbons, C9, aromatics:**

Result : No skin irritation

**Triclopyr-2-butoxyethyl ester:**

Species : Rabbit
Result : No skin irritation

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Species : Rabbit
Result : Skin irritation

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Result : Skin irritation

**Serious eye damage/eye irritation**

**Product:**

Result : Eye irritation
Remarks : May cause moderate eye irritation which may be slow to heal.
May cause slight corneal injury.

**Components:**

**Hydrocarbons, C9, aromatics:**

Result : No eye irritation

**Triclopyr-2-butoxyethyl ester:**

Species : Rabbit
Result : No eye irritation

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Species : Rabbit
Result : Corrosive

**clopyralid (ISO):**

Species : Rabbit
Result : Corrosive

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Result : Corrosive

**Respiratory or skin sensitisation**

**Product:**

Assessment : The product is a skin sensitiser, sub-category 1B.
Remarks : Has demonstrated the potential for contact allergy in mice.

Remarks : For respiratory sensitization:
No relevant data found.

**Components:**

**Hydrocarbons, C9, aromatics:**

Assessment : Does not cause skin sensitisation.
Remarks : For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:
No relevant data found.

**Triclopyr-2-butoxyethyl ester:**

Species : Guinea pig

Assessment : The product is a skin sensitiser, sub-category 1B.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Remarks : For similar material(s):

**clopyralid (ISO):**

Species : Guinea pig
Assessment : Does not cause skin sensitisation.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Remarks : For skin sensitization:
For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:
No relevant data found.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Remarks : For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

Remarks : For respiratory sensitization:
No relevant data found.

**Germ cell mutagenicity**

**Components:**

**Hydrocarbons, C9, aromatics:**

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Triclopyr-2-butoxyethyl ester:**

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative.

**clopyralid (ISO):**

Germ cell mutagenicity- Assessment : In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Germ cell mutagenicity- Assessment : For similar material(s):, In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Germ cell mutagenicity- Assessment : For similar material(s):, In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

**Carcinogenicity**

**Components:**

**Hydrocarbons, C9, aromatics:**

Carcinogenicity - Assessment : Xylene was not found to be carcinogenic in a National Toxicology Program bioassay in rats and mice.

**Triclopyr-2-butoxyethyl ester:**

Carcinogenicity - Assessment : For similar active ingredient(s)., Triclopyr., Did not cause cancer in laboratory animals.

**clopyralid (ISO):**

Carcinogenicity - Assessment : Did not cause cancer in laboratory animals.

**Reproductive toxicity**

**Components:**

**Hydrocarbons, C9, aromatics:**

Reproductive toxicity - Assessment : In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
Has caused birth defects in laboratory animals only at doses producing severe toxicity in the mother., Exaggerated doses of xylene given orally to pregnant mice resulted in an increase in cleft palate, a common developmental abnormality in mice.
In animal inhalation studies, xylene caused toxicity to the fetus but did not cause birth defects.

**Triclopyr-2-butoxyethyl ester:**

Reproductive toxicity - Assessment : For similar active ingredient(s)., Triclopyr., In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory animals.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Reproductive toxicity - Assessment : For similar material(s):, Did not cause birth defects or any other fetal effects in laboratory animals.

**clopyralid (ISO):**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction.
Clopyralid caused birth defects in test animals, but only at greatly exaggerated doses that were severely toxic to the mothers. No birth defects were observed in animals given clopyralid at doses several times greater than those expected during normal exposure.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Reproductive toxicity - Assessment : For similar material(s):, In animal studies, did not interfere with reproduction.
For similar material(s):, Did not cause birth defects or any other fetal effects in laboratory animals.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Reproductive toxicity - Assessment : In animal studies, did not interfere with reproduction.
For similar material(s):, Did not cause birth defects or any other fetal effects in laboratory animals.

**STOT - single exposure**

**Product:**

Exposure routes : Inhalation
Target Organs : Respiratory Tract
Assessment : May cause respiratory irritation.

Exposure routes : Inhalation
Assessment : May cause drowsiness or dizziness.

**Components:**

**Hydrocarbons, C9, aromatics:**

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

**Triclopyr-2-butoxyethyl ester:**

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Exposure routes : Inhalation
Assessment : May cause respiratory irritation.

**clopyralid (ISO):**

Assessment : Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Assessment : Available data are inadequate to determine single exposure specific target organ toxicity.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Exposure routes : Inhalation
Assessment : May cause drowsiness or dizziness.

**STOT - repeated exposure**

**Components:**

**Triclopyr-2-butoxyethyl ester:**

Target Organs : Kidney
Assessment : May cause damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**

**Hydrocarbons, C9, aromatics:**

Remarks : In animals, effects have been reported on the following organs:
Blood.
Kidney.
Liver.
Xylene is reported to have caused hearing loss in laboratory animals upon exposure to high concentrations; such effects have not been reported in humans.
For the minor component(s):
Cumene.
Eye.

**Triclopyr-2-butoxyethyl ester:**

Remarks : In animals, effects have been reported on the following organs:
Kidney.
Liver.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Remarks : For similar material(s):
Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

**clopyralid (ISO):**

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Remarks : For similar material(s):
In animals, effects have been reported on the following organs:
Kidney.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Remarks : Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Aspiration toxicity**

**Product:**

May be fatal if swallowed and enters airways.

**Components:**

**Hydrocarbons, C9, aromatics:**

May be fatal if swallowed and enters airways.

**Triclopyr-2-butoxyethyl ester:**

Based on physical properties, not likely to be an aspiration hazard.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

May be harmful if swallowed and enters airways.

**clopyralid (ISO):**

Based on physical properties, not likely to be an aspiration hazard.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Based on physical properties, not likely to be an aspiration hazard.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

May be fatal if swallowed and enters airways.

### 11.2 Information on other hazards

**Endocrine disrupting properties**

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**

| | | |
|---|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 21.6 mg/l<br>Exposure time: 48 h<br>Test Type: static test |
| Toxicity to algae/aquatic plants | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): 16.6 mg/l<br>End point: Growth rate inhibition<br>Exposure time: 72 h<br>Test Type: static test<br><br>ErC50 (Myriophyllum spicatum): 0.190 mg/l<br>Exposure time: 14 d<br><br>NOEC (Myriophyllum spicatum): 0.0305 mg/l<br>Exposure time: 14 d |
| Toxicity to soil dwelling organisms | : | LC50: 224 mg/kg<br>Exposure time: 14 d<br>Species: Eisenia fetida (earthworms) |
| Toxicity to terrestrial organisms | : | Remarks: Material is slightly toxic to birds on an acute basis (LD50 between 501 and 2000 mg/kg).<br><br>oral LD50: 1156 mg/kg bodyweight.<br>Exposure time: 14 d<br>Species: Colinus virginianus (Bobwhite quail)<br>GLP:yes<br><br>oral LD50: > 370 µg/bee<br>Exposure time: 48 h<br>Species: Apis mellifera (bees)<br><br>contact LD50: > 413 µg/bee<br>Exposure time: 48 h<br>Species: Apis mellifera (bees) |

**Ecotoxicology Assessment**

| | | |
|---|---|---|
| Acute aquatic toxicity | : | Very toxic to aquatic life. |
| Chronic aquatic toxicity | : | Very toxic to aquatic life with long lasting effects. |

**Components:**

**Hydrocarbons, C9, aromatics:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species). |

LC50 (Oncorhynchus mykiss (rainbow trout)): 9.22 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : LC50 (saltwater mysid Mysidopsis bahia): 2.0 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 2.9 mg/l
Exposure time: 72 h
Remarks: For similar material(s):

Toxicity to terrestrial organisms : Remarks: Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).
Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

dietary LC50: > 6500 mg/kg diet.
Exposure time: 8 d
Species: Colinus virginianus (Bobwhite quail)

oral LD50: > 2150 mg/kg bodyweight.
Exposure time: 21 d
Species: Colinus virginianus (Bobwhite quail)

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Triclopyr-2-butoxyethyl ester:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.36 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.9 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 3.00 mg/l
End point: Growth rate inhibition
Exposure time: 96 h
Method: OECD Test Guideline 201

ErC50 (Myriophyllum spicatum): 0.0473 mg/l
Exposure time: 14 d

NOEC (Myriophyllum spicatum): 0.00722 mg/l
Exposure time: 14 d

M-Factor (Acute aquatic toxicity) : 10

| | | |
|---|---|---|
| Toxicity to fish (Chronic toxicity) | : | NOEC: 0.0263 mg/l<br>Species: Rainbow trout (Oncorhynchus mykiss) |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 1.6 mg/l<br>End point: number of offspring<br>Exposure time: 21 d<br>Species: Daphnia magna (Water flea)<br><br>LOEC: 5.1 mg/l<br>End point: number of offspring<br>Exposure time: 21 d<br>Species: Daphnia magna (Water flea)<br><br>MATC (Maximum Acceptable Toxicant Level): 2.9 mg/l<br>End point: number of offspring<br>Exposure time: 21 d<br>Species: Daphnia magna (Water flea) |
| M-Factor (Chronic aquatic toxicity) | : | 10 |
| Toxicity to soil dwelling organisms | : | LC50: > 521 mg/kg<br>Exposure time: 14 d<br>Species: Eisenia fetida (earthworms) |
| Toxicity to terrestrial organisms | : | oral LD50: 735 mg/kg bodyweight.<br>Exposure time: 21 d<br>Species: Colinus virginianus (Bobwhite quail)<br><br>dietary LC50: 1890 mg/kg diet.<br>Exposure time: 8 d<br>Species: Colinus virginianus (Bobwhite quail)<br><br>oral LD50: > 110 µg/bee<br>Exposure time: 48 h<br>End point: mortality<br>Species: Apis mellifera (bees)<br><br>contact LD50: > 100 µg/bee<br>Exposure time: 48 h<br>End point: mortality<br>Species: Apis mellifera (bees) |

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

| | | |
|---|---|---|
| Toxicity to fish | : | Remarks: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).<br><br>Remarks: Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).<br><br>LC50 (Danio rerio (zebra fish)): 14.8 mg/l |

Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 7.7 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 16.06 mg/l
Exposure time: 72 h

**Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

**clopyralid (ISO):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 99.9 mg/l
Exposure time: 96 h
Test Type: static test

NOEC (Lepomis macrochirus (Bluegill sunfish)): > 102 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 99 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae/aquatic plants : ErC50 (Myriophyllum spicatum): > 3 mg/l
Exposure time: 14 d

NOEC (Myriophyllum spicatum): 0.0089 mg/l
Exposure time: 14 d

ErC50 (Selenastrum capricornutum (green algae)): 30.0 mg/l
End point: Growth rate inhibition
Exposure time: 72 h

Toxicity to microorganisms : (Bacteria): > 100 mg/l

Toxicity to fish (Chronic toxicity) : NOEC: 10.8 mg/l
End point: Other
Exposure time: 34 d
Species: Pimephales promelas (fathead minnow)
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 17 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: static test
Method: OECD Test Guideline 211 or Equivalent

M-Factor (Chronic aquatic toxicity) : 10

Toxicity to soil dwelling organisms : LC50: > 1,000 mg/kg
Exposure time: 14 d
End point: survival

Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organisms : oral LD50: 1465 mg/kg bodyweight.
Species: Anas platyrhynchos (Mallard duck)

dietary LC50: > 5000 mg/kg diet.
Exposure time: 8 d
Species: Colinus virginianus (Bobwhite quail)

oral LD50: > 100 micrograms/bee
Exposure time: 48 h
End point: mortality
Species: Apis mellifera (bees)

contact LD50: > 98.1 micrograms/bee
Species: Apis mellifera (bees)

**Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Toxicity to fish : Remarks: Material is harmful to aquatic organisms (LC50/EC50/IC50 between 10 and 100 mg/L in the most sensitive species).

LC50 (zebra fish (Brachydanio rerio)): 31.6 mg/l
Exposure time: 96 h
Remarks: For similar material(s):

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 62 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): 29 mg/l
End point: Growth rate inhibition
Exposure time: 96 h
Remarks: For similar material(s):

Toxicity to microorganisms : EC50 (activated sludge): 550 mg/l
End point: Respiration rates.
Exposure time: 3 h
Remarks: For similar material(s):

Toxicity to fish (Chronic toxicity) : NOEC: 0.23 mg/l
End point: survival
Exposure time: 72 d
Species: Rainbow trout (Salmo gairdneri)
Remarks: For similar material(s):

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1.18 mg/l
End point: number of offspring
Exposure time: 21 d

Species: Daphnia magna (Water flea)
Remarks: For similar material(s):

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Toxicity to fish : Remarks: For similar material(s):
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Remarks: For similar material(s):
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

LC50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l
Exposure time: 96 h
Remarks: For similar material(s):

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna): 3 - 10 mg/l
Exposure time: 48 h
Remarks: For similar material(s):

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 11 mg/l
Exposure time: 72 h
Remarks: For similar material(s):

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

**Components:**

**Hydrocarbons, C9, aromatics:**

Biodegradability : Remarks: For the major component(s):
Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
For some component(s):
Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Result: Not biodegradable

**Triclopyr-2-butoxyethyl ester:**

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 18 %
Exposure time: 28 d
Method: OECD Test Guideline 301B or Equivalent
Remarks: 10-day Window: Fail

| | | |
|---|---|---|
| Biochemical Oxygen Demand (BOD) | : | 0.004 kg/kg |
| ThOD | : | 1.21 kg/kg |
| Stability in water | : | Test Type: Hydrolysis<br>Degradation half life (half-life): 8.7 d (25 °C)<br>pH: 7 |
| Photodegradation | : | Rate constant: 2.3E-11 cm3/s<br>Method: Estimated. |

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.<br><br>Result: Readily biodegradable.<br>Biodegradation: > 80 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301F or Equivalent<br>Remarks: 10-day Window: Pass |
| Chemical Oxygen Demand (COD) | : | 2.890 mg/g |

**clopyralid (ISO):**

| | | |
|---|---|---|
| Biodegradability | : | Biodegradation: 5 - 10 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301B or Equivalent<br>Remarks: 10-day Window: Fail |
| ThOD | : | 0.71 kg/kg |
| Stability in water | : | Test Type: Hydrolysis<br>pH: 4 - 9<br>Method: Stable |
| Photodegradation | : | Test Type: Half-life (direct photolysis) |

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Not readily biodegradable.<br>Remarks: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.<br><br>Biodegradation: 2.9 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301E or Equivalent<br>Remarks: 10-day Window: Fail |

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

| | | |
|---|---|---|
| Biodegradability | : | Remarks: Material is inherently biodegradable (reaches > |

20% biodegradation in OECD test(s) for inherent biodegradability).

### 12.3 Bioaccumulative potential

**Components:**

**Hydrocarbons, C9, aromatics:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | Remarks: For the major component(s):<br>Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).<br>For the minor component(s):<br>Bioconcentration potential is low (BCF < 100 or Log Pow < 3). |

**Triclopyr-2-butoxyethyl ester:**

| | | |
|---|---|---|
| Bioaccumulation | : | Species: Fish<br>Bioconcentration factor (BCF): 110 |
| Partition coefficient: n-octanol/water | : | log Pow: 4.62<br>pH: 7<br>Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). |

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: < 3.44 (20 °C)<br>Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). |

**clopyralid (ISO):**

| | | |
|---|---|---|
| Bioaccumulation | : | Species: Fish<br>Bioconcentration factor (BCF): < 1<br>Method: Measured |
| Partition coefficient: n-octanol/water | : | log Pow: -2.63<br>Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3). |

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | log Pow: 4.6<br>Method: OECD Test Guideline 107 or Equivalent<br>Remarks: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5). |

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

| | | |
|---|---|---|
| Partition coefficient: n-octanol/water | : | Remarks: No data available for this product.<br>For similar material(s):<br>Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7). |

### 12.4 Mobility in soil

**Components:**

**Hydrocarbons, C9, aromatics:**

Distribution among environmental compartments : Remarks: No relevant data found.

**Triclopyr-2-butoxyethyl ester:**

Distribution among environmental compartments : Remarks: Calculation of meaningful sorption data was not possible due to very rapid degradation in the soil.
For the degradation product:
Triclopyr.
Potential for mobility in soil is very high (Koc between 0 and 50).

Stability in soil : Test Type: aerobic degradation
Dissipation time: 144 - 1,248 h

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Distribution among environmental compartments : Koc: 527.3
Remarks: Potential for mobility in soil is low (Koc between 500 and 2000).

**clopyralid (ISO):**

Distribution among environmental compartments : Koc: 4.9
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Stability in soil : Test Type: aerobic degradation
Dissipation time: 71 d
Method: Estimated.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Distribution among environmental compartments : Remarks: No relevant data found.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Distribution among environmental compartments : Remarks: No relevant data found.

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

**Components:**

**Hydrocarbons, C9, aromatics:**

Assessment : This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT)..

**Triclopyr-2-butoxyethyl ester:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

**clopyralid (ISO):**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Components:**

**Hydrocarbons, C9, aromatics:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Triclopyr-2-butoxyethyl ester:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**clopyralid (ISO):**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.
If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

## SECTION 14: Transport information

### 14.1 UN number or ID number

**ADR** : UN 1993

**RID** : UN 1993

**IMDG** : UN 1993

**IATA** : UN 1993

### 14.2 UN proper shipping name

**ADR** : FLAMMABLE LIQUID, N.O.S.
(Hydrocarbons, C9, aromatics)

**RID** : FLAMMABLE LIQUID, N.O.S.

(Hydrocarbons, C9, aromatics)

**IMDG** : FLAMMABLE LIQUID, N.O.S.
(Hydrocarbons, C9, aromatics, Triclopyr-2-butoxyethyl Ester, Clopyralid)

**IATA** : Flammable liquid, n.o.s.
(Hydrocarbons, C9, aromatics)

**14.3 Transport hazard class(es)**

**ADR** : 3

**RID** : 3

**IMDG** : 3

**IATA** : 3

**14.4 Packing group**

**ADR**

| | | |
|---|---|---|
| Packing group | : | III |
| Classification Code | : | F1 |
| Hazard Identification Number | : | 30 |
| Labels | : | 3 |
| Tunnel restriction code | : | (D/E) |

**RID**

| | | |
|---|---|---|
| Packing group | : | III |
| Classification Code | : | F1 |
| Hazard Identification Number | : | 30 |
| Labels | : | 3 |

**IMDG**

| | | |
|---|---|---|
| Packing group | : | III |
| Labels | : | 3 |
| EmS Code | : | F-E, S-E |
| Remarks | : | Stowage category A |

**IATA (Cargo)**

| | | |
|---|---|---|
| Packing instruction (cargo aircraft) | : | 366 |
| Packing instruction (LQ) | : | Y344 |
| Packing group | : | III |
| Labels | : | Flammable Liquids |

**IATA (Passenger)**

| | | |
|---|---|---|
| Packing instruction (passenger aircraft) | : | 355 |
| Packing instruction (LQ) | : | Y344 |
| Packing group | : | III |
| Labels | : | Flammable Liquids |

**14.5 Environmental hazards**

**ADR**
Environmentally hazardous : no

**RID**
Environmentally hazardous : no

**IMDG**
Marine pollutant : no

**14.6 Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

**14.7 Maritime transport in bulk according to IMO instruments**

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

| | | |
|---|---|---|
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | : | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV) | : | Not applicable |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | : | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast) | : | Not applicable |

| | | |
|---|---|---|
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | P5c | FLAMMABLE LIQUIDS |
| | E1 | ENVIRONMENTAL HAZARDS |
| | 34 | Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d) |
| | E1 | ENVIRONMENTAL HAZARDS |

**15.2 Chemical safety assessment**

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## SECTION 16: Other information

**Information Source and References**
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

**Full text of H-Statements**

| | | |
|---|---|---|
| H226 | : | Flammable liquid and vapour. |
| H302 | : | Harmful if swallowed. |
| H304 | : | May be fatal if swallowed and enters airways. |
| H312 | : | Harmful in contact with skin. |
| H315 | : | Causes skin irritation. |
| H317 | : | May cause an allergic skin reaction. |
| H318 | : | Causes serious eye damage. |
| H335 | : | May cause respiratory irritation. |
| H336 | : | May cause drowsiness or dizziness. |
| 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. |

**Full text of other abbreviations**

| | | |
|---|---|---|
| Acute Tox. | : | Acute toxicity |
| Aquatic Acute | : | Short-term (acute) aquatic hazard |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard |
| Asp. Tox. | : | Aspiration hazard |
| Eye Dam. | : | Serious eye damage |
| Flam. Liq. | : | Flammable liquids |
| Skin Irrit. | : | Skin irritation |
| Skin Sens. | : | Skin sensitisation |
| STOT RE | : | Specific target organ toxicity - repeated exposure |
| STOT SE | : | Specific target organ toxicity - single exposure |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL -

International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

| **Classification of the mixture:** | | **Classification procedure:** |
|---|---|---|
| Flam. Liq. 3 | H226 | Based on product data or assessment |
| Asp. Tox. 1 | H304 | Based on product data or assessment |
| 2 | H315 | On basis of test data. |
| Skin Sens. 1B | H317 | Based on product data or assessment |
| Eye Irrit. 2 | H319 | Based on product data or assessment |
| STOT SE 3 | H335 | Based on product data or assessment |
| STOT SE 3 | H336 | Based on product data or assessment |
| STOT RE 2 | H373 | Calculation method |
| Aquatic Acute 1 | H400 | Based on product data or assessment |
| Aquatic Chronic 1 | H410 | Based on product data or assessment |

Product code: GF-1652

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