

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## Fluralaner / Diethyltoluamide Liquid Formulation

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 14.04.2025  |
| 13.3    | 02.10.2025     | 462542-00032 | Date of first issue: 15.01.2016 |

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

#### 1.1 Product identifier

Trade name : Fluralaner / Diethyltoluamide Liquid Formulation

Other means of identification : BRAVECTO SPOT-ON (A011261)  
BRAVECTO 1000 MG FLURALANER SPOT-ON SOLUTION  
FOR LARGE DOGS (82794)  
BRAVECTO 112.5 MG FLURALANER SPOT-ON SOLUTION  
FOR SMALL CATS (82807)  
BRAVECTO 112.5 MG FLURALANER SPOT-ON SOLUTION  
FOR VERY SMALL DOGS (82798)  
BRAVECTO 1400 MG FLURALANER SPOT-ON SOLUTION  
FOR VERY LARGE DOGS (82795)  
BRAVECTO 250 MG FLURALANER SPOT-ON SOLUTION  
FOR MEDIUM CATS (82806)  
BRAVECTO 250 MG FLURALANER SPOT-ON SOLUTION  
FOR SMALL DOGS (82797)  
BRAVECTO 500 MG FLURALANER SPOT-ON SOLUTION  
FOR LARGE CATS (82804)  
BRAVECTO 500 MG FLURALANER SPOT-ON SOLUTION  
FOR MEDIUM DOGS (82796)

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

Use of the Sub-  
stance/Mixture : Veterinary product

Recommended restrictions  
on use : Not applicable

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

Company : MSD  
Kilsheelan  
Clonmel Tipperary, IE

Telephone : 353-51-601000

E-mail address of person  
responsible for the SDS : EHSDATASTEWARD@msd.com

#### 1.4 Emergency telephone number

+1-908-423-6000

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

|  |   |
|--|---|
| Flammable liquids, Category 2                  | H225: Highly flammable liquid and vapour.                   |
| Reproductive toxicity, Category 1B             | H360D: May damage the unborn child.                         |
| 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 : H225 Highly flammable liquid and vapour.  
H360D May damage the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P391 Collect spillage.

Hazardous components which must be listed on the label:

N,N-Dimethylacetamide  
Restricted to professional users.

#### 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.

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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.

Vapours may form explosive mixture with air.

### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

##### Components

| Chemical name   | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification   | Concentration<br>(% w/w) |
|---|---|--|--------------------------|
| N,N-Dimethylacetamide   | 127-19-5<br>204-826-4<br>616-011-00-4                 | Acute Tox. 4; H332<br>Acute Tox. 4; H312<br>Eye Irrit. 2; H319<br>Repr. 1B; H360D<br><br>Acute toxicity estimate<br><br>Acute inhalation toxicity (dust/mist):<br>2,2 mg/l<br>Acute dermal toxicity: 1.100 mg/kg | >= 30 - < 50             |
| Fluralaner  | 864731-61-3   | Repr. 2; H361d<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Chronic aquatic toxicity):<br>1.000  | >= 25 - < 30             |
| Poly(oxy-1,2-ethanediyl), .alpha.-<br>[(tetrahydro-2-furanyl)methyl]-<br>.omega.-hydroxy- | 31692-85-0  | Eye Irrit. 2; H319   | >= 10 - < 20             |
| N,N-Diethyl-m-toluamide   | 134-62-3<br>205-149-7<br>616-018-00-2                 | Acute Tox. 4; H302<br>Skin Irrit. 2; H315<br>Eye Irrit. 2; H319<br><br>Acute toxicity estimate<br><br>Acute oral toxicity:<br>1.892 mg/kg  | >= 10 - < 20             |
| Acetone   | 67-64-1<br>200-662-2                                  | Flam. Liq. 2; H225<br>Eye Irrit. 2; H319   | >= 10 - < 20             |

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|  |              |                           |  |
|--|--------------|---------------------------|--|
|  | 606-001-00-8 | STOT SE 3; H336<br>EUH066 |  |
|--|--------------|---------------------------|--|

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- |                            |   |
|----------------------------|---|
| General advice             | : In the case of accident or if you feel unwell, seek medical advice immediately.<br>When symptoms persist or in all cases of doubt seek medical advice.  |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).   |
| If inhaled                 | : If inhaled, remove to fresh air.<br>Get medical attention.  |
| In case of skin contact    | : In case of contact, immediately flush skin with soap and plenty of water.<br>Remove contaminated clothing and shoes.<br>Get medical attention.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse.                           |
| In case of eye contact     | : Flush eyes with water as a precaution.<br>Get medical attention if irritation develops and persists.  |
| If swallowed               | : If swallowed, DO NOT induce vomiting.<br>If vomiting occurs have person lean forward.<br>Call a physician or poison control centre immediately.<br>Rinse mouth thoroughly with water.<br>Never give anything by mouth to an unconscious person. |

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

- |       |                                |
|-------|--------------------------------|
| Risks | : May damage the unborn child. |
|-------|--------------------------------|

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

- |           |   |
|-----------|---|
| Treatment | : Treat symptomatically and supportively. |
|-----------|---|

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- |                              |               |
|------------------------------|---------------|
| Suitable extinguishing media | : Water spray |
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Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.  
Flash back possible over considerable distance.  
Vapours may form explosive mixtures with air.  
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Chlorine compounds  
Fluorine compounds  
Nitrogen oxides (NO<sub>x</sub>)

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

## SECTION 6: Accidental release measures

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

Personal precautions : Remove all sources of ignition.  
Ventilate the area.  
Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

### 6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.  
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.

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

Methods for cleaning up : Non-sparking tools should be used.  
Soak up with inert absorbent material.  
Suppress (knock down) gases/vapours/mists with a water spray jet.  
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### 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

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.  
Use explosion-proof electrical, ventilating and lighting equipment.

Advice on safe handling : Do not get on skin or clothing.  
Do not breathe vapours or spray mist.  
Do not swallow.  
Avoid contact with eyes.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Non-sparking tools should be used.  
Keep container tightly closed.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take precautionary measures against static discharges.  
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.  
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures,

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industrial hygiene monitoring, medical surveillance and the  
use of administrative controls.

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

Requirements for storage areas and containers : Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Advice on common storage : Do not store with the following product types:  
Strong oxidizing agents  
Self-reactive substances and mixtures  
Organic peroxides  
Flammable solids  
Pyrophoric liquids  
Pyrophoric solids  
Self-heating substances and mixtures  
Substances and mixtures, which in contact with water, emit flammable gases  
Explosives  
Gases  
Very acutely toxic substances and mixtures

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

| Components            | CAS-No.   | Value type (Form of exposure) | Control parameters             | Basis               |
|-----------------------|---|-------------------------------|--------------------------------|---------------------|
| N,N-Dimethylacetamide | 127-19-5  | TWA                           | 10 ppm<br>36 mg/m <sup>3</sup> | FOR-2011-12-06-1358 |
|                       | Further information: Substances considered to be reprotoxic, Chemicals that can be absorbed through the skin. |                               |                                |                     |
|                       |   | STEL                          | 20 ppm<br>72 mg/m <sup>3</sup> | FOR-2011-12-06-1358 |
|                       | Further information: Substances considered to be reprotoxic, Chemicals that can be absorbed through the skin. |                               |                                |                     |
|                       |   | TWA                           | 10 ppm<br>36 mg/m <sup>3</sup> | 2000/39/EC          |
|                       | Further information: Identifies the possibility of significant uptake through the skin, Indicative            |                               |                                |                     |
|                       |   | STEL                          | 20 ppm<br>72 mg/m <sup>3</sup> | 2000/39/EC          |
|                       | Further information: Identifies the possibility of significant uptake through the skin, Indicative            |                               |                                |                     |

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|            |  |            |                                    |                     |
|------------|--|------------|------------------------------------|---------------------|
|            |  | TWA        | 10 ppm<br>36 mg/m <sup>3</sup>     | 2004/37/EC          |
|            | Further information: Skin, Carcinogens or mutagens |            |                                    |                     |
|            |  | STEL       | 20 ppm<br>72 mg/m <sup>3</sup>     | 2004/37/EC          |
|            | Further information: Skin, Carcinogens or mutagens |            |                                    |                     |
| Fluralaner | 864731-61-3  | TWA        | 100 µg/m <sup>3</sup> (OEB 2)      | Internal            |
|            | Further information: Skin                          |            |                                    |                     |
|            |  | Wipe limit | 1000 µg/100 cm <sup>2</sup>        | Internal            |
| Acetone    | 67-64-1  | TWA        | 125 ppm<br>295 mg/m <sup>3</sup>   | FOR-2011-12-06-1358 |
|            |  | TWA        | 500 ppm<br>1.210 mg/m <sup>3</sup> | 2000/39/EC          |
|            | Further information: Indicative                    |            |                                    |                     |

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

| Substance name        | End Use   | Exposure routes | Potential health effects   | Value                  |
|-----------------------|-----------|-----------------|----------------------------|------------------------|
| N,N-Dimethylacetamide | Workers   | Inhalation      | Long-term systemic effects | 36 mg/m <sup>3</sup>   |
|                       | Workers   | Inhalation      | Acute systemic effects     | 36 mg/m <sup>3</sup>   |
|                       | Workers   | Skin contact    | Acute systemic effects     | 13,6 mg/kg bw/day      |
|                       | Consumers | Inhalation      | Long-term local effects    | 7 mg/m <sup>3</sup>    |
|                       | Consumers | Skin contact    | Long-term systemic effects | 2,7 mg/kg bw/day       |
|                       | Consumers | Ingestion       | Long-term systemic effects | 1 mg/kg bw/day         |
| Acetone               | Workers   | Inhalation      | Long-term systemic effects | 1210 mg/m <sup>3</sup> |
|                       | Workers   | Inhalation      | Acute local effects        | 2420 mg/m <sup>3</sup> |
|                       | Workers   | Skin contact    | Long-term systemic effects | 186 mg/kg bw/day       |
|                       | Consumers | Inhalation      | Long-term systemic effects | 200 mg/m <sup>3</sup>  |
|                       | Consumers | Skin contact    | Long-term systemic effects | 62 mg/kg bw/day        |
|                       | Consumers | Ingestion       | Long-term systemic effects | 62 mg/kg bw/day        |

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

| Substance name        | Environmental Compartment | Value       |
|-----------------------|---------------------------|-------------|
| Fluralaner            | Water                     | 7 ng/l      |
| N,N-Dimethylacetamide | Fresh water               | 0,5 mg/l    |
|                       | Marine water              | 0,0966 mg/l |
|                       | Intermittent use/release  | 5 mg/l      |
|                       | Sewage treatment plant    | 485 mg/l    |



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|         |                          |                              |
|---------|--------------------------|------------------------------|
|         | Fresh water sediment     | 2,27 mg/kg                   |
|         | Soil                     | 0,15 mg/kg                   |
| Acetone | Fresh water              | 10,6 mg/l                    |
|         | Marine water             | 1,06 mg/l                    |
|         | Intermittent use/release | 21 mg/l                      |
|         | Sewage treatment plant   | 100 mg/l                     |
|         | Fresh water sediment     | 30,4 mg/kg dry weight (d.w.) |
|         | Marine sediment          | 3,04 mg/kg dry weight (d.w.) |
|         | Soil                     | 29,5 mg/kg dry weight (d.w.) |

### 8.2 Exposure controls

#### Engineering measures

Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).

All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

Laboratory operations do not require special containment.

Use explosion-proof electrical, ventilating and lighting equipment.

#### Personal protective equipment

Eye/face protection : Wear safety glasses with side shields or goggles.  
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.  
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Hand protection

Material : Chemical-resistant gloves

Remarks : Take note that the product is flammable, which may impact the selection of hand protection.

Skin and body protection : Work uniform or laboratory coat.

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.  
Equipment should conform to NS EN 137

Filter type : Self-contained breathing apparatus

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : liquid

Form : liquid

Colour : yellow

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Odour : No data available

Odour Threshold : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : 103 °C

Flammability (solid, gas) : Not applicable

Flammability (liquids) : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : 7 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : No data available

Viscosity  
Viscosity, kinematic : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Vapour pressure : 67 hPa (20 °C)

Relative density : No data available

Density : 1,059 g/cm<sup>3</sup>

Relative vapour density : No data available

Particle characteristics  
Particle size : Not applicable

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### 9.2 Other information

|                      |   |  |
|----------------------|---|--|
| Explosives           | : | Not explosive  |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Evaporation rate     | : | No data available  |
| Molecular weight     | : | No data available  |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not classified as a reactivity hazard.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

|                     |   |  |
|---------------------|---|--|
| Hazardous reactions | : | Highly flammable liquid and vapour.<br>Vapours may form explosive mixture with air.<br>Can react with strong oxidizing agents. |
|---------------------|---|--|

### 10.4 Conditions to avoid

|                     |   |                          |
|---------------------|---|--------------------------|
| Conditions to avoid | : | Heat, flames and sparks. |
|---------------------|---|--------------------------|

### 10.5 Incompatible materials

|                    |   |                  |
|--------------------|---|------------------|
| Materials to avoid | : | Oxidizing agents |
|--------------------|---|------------------|

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

## SECTION 11: Toxicological information

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

|  |   |  |
|--|---|--|
| Information on likely routes of exposure | : | Inhalation<br>Skin contact<br>Ingestion<br>Eye contact |
|--|---|--|

#### Acute toxicity

Not classified based on available information.

#### Product:

|                     |   |   |
|---------------------|---|---|
| Acute oral toxicity | : | LD50 (Rat): > 2.000 mg/kg<br>Remarks: No mortality observed at this dose. |
|---------------------|---|---|

|                           |   |   |
|---------------------------|---|---|
| Acute inhalation toxicity | : | Acute toxicity estimate: > 5 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist |
|---------------------------|---|---|

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Method: Calculation method

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Symptoms: Erythema

### Components:

#### **N,N-Dimethylacetamide:**

Acute oral toxicity : LD50 (Rat): 4.800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 2,2 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : Acute toxicity estimate: 1.100 mg/kg  
Method: Expert judgement  
Remarks: Based on national or regional regulation.

#### **Fluralaner:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Remarks: No mortality observed at this dose.  
No significant adverse effects were reported

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Remarks: No significant adverse effects were reported

#### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg  
Method: OECD Test Guideline 423  
Remarks: Based on data from similar materials

#### **N,N-Diethyl-m-toluamide:**

Acute oral toxicity : LD50 (Rat): 1.892 mg/kg

Acute inhalation toxicity : LC50 (Rat): 5,95 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat): 5.000 mg/kg

#### **Acetone:**

Acute oral toxicity : LD50 (Rat): 5.800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 76 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): 7.426 mg/kg

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### Skin corrosion/irritation

Not classified based on available information.

#### Product:

|         |   |                    |
|---------|---|--------------------|
| Species | : | Rabbit             |
| Result  | : | No skin irritation |

#### Components:

##### **N,N-Dimethylacetamide:**

|         |   |                    |
|---------|---|--------------------|
| Species | : | Rabbit             |
| Result  | : | No skin irritation |

##### **Fluralaner:**

|         |   |                    |
|---------|---|--------------------|
| Species | : | Rabbit             |
| Result  | : | No skin irritation |

##### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

|         |   |                                      |
|---------|---|--------------------------------------|
| Species | : | reconstructed human epidermis (RhE)  |
| Method  | : | OECD Test Guideline 439              |
| Remarks | : | Based on data from similar materials |

|        |   |                    |
|--------|---|--------------------|
| Result | : | No skin irritation |
|--------|---|--------------------|

##### **N,N-Diethyl-m-toluamide:**

|         |   |   |
|---------|---|---|
| Species | : | Rabbit                                    |
| Result  | : | Skin irritation                           |
| Remarks | : | Based on national or regional regulation. |

##### **Acetone:**

|            |   |   |
|------------|---|---|
| Assessment | : | Repeated exposure may cause skin dryness or cracking. |
|------------|---|---|

### Serious eye damage/eye irritation

Not classified based on available information.

#### Product:

|         |   |                   |
|---------|---|-------------------|
| Species | : | Rabbit            |
| Result  | : | No eye irritation |

#### Components:

##### **N,N-Dimethylacetamide:**

|         |   |  |
|---------|---|--|
| Species | : | Rabbit                                       |
| Result  | : | Irritation to eyes, reversing within 21 days |

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### Fluralaner:

|         |                       |
|---------|-----------------------|
| Species | : Rabbit              |
| Result  | : Mild eye irritation |

### Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:

|         |  |
|---------|--|
| Species | : Tissue Culture                       |
| Method  | : OECD Test Guideline 492              |
| Remarks | : Based on data from similar materials |

|         |  |
|---------|--|
| Species | : Bovine cornea                        |
| Method  | : OECD Test Guideline 437              |
| Remarks | : Based on data from similar materials |

|        |  |
|--------|--|
| Result | : Irritation to eyes, reversing within 21 days |
|--------|--|

### N,N-Diethyl-m-toluamide:

|         |  |
|---------|--|
| Species | : Rabbit                                       |
| Result  | : Irritation to eyes, reversing within 21 days |
| Remarks | : Based on national or regional regulation.    |

### Acetone:

|         |  |
|---------|--|
| Species | : Rabbit                                       |
| Method  | : OECD Test Guideline 405                      |
| Result  | : Irritation to eyes, reversing within 21 days |

### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

### Product:

|                 |                                      |
|-----------------|--------------------------------------|
| Test Type       | : Maximisation Test                  |
| Exposure routes | : Dermal                             |
| Species         | : Guinea pig                         |
| Assessment      | : Does not cause skin sensitisation. |
| Result          | : negative                           |

### Components:

#### N,N-Dimethylacetamide:

|                 |                |
|-----------------|----------------|
| Exposure routes | : Skin contact |
| Species         | : Guinea pig   |
| Result          | : negative     |

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|                 |                          |
|-----------------|--------------------------|
| Test Type       | : Maximisation Test      |
| Exposure routes | : Dermal                 |
| Species         | : Guinea pig             |
| Result          | : Not a skin sensitizer. |

### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

|           |  |
|-----------|--|
| Test Type | : KeratinoSens assay                   |
| Method    | : OECD Test Guideline 442D             |
| Result    | : negative                             |
| Remarks   | : Based on data from similar materials |

|           |  |
|-----------|--|
| Test Type | : Direct Peptide Reactivity Assay (DPRA) |
| Method    | : OECD Test Guideline 442C               |
| Result    | : positive                               |
| Remarks   | : Based on data from similar materials   |

|           |  |
|-----------|--|
| Test Type | : Dendritic cell activation test       |
| Method    | : OECD Test Guideline 442E             |
| Result    | : negative                             |
| Remarks   | : Based on data from similar materials |

### **Acetone:**

|                 |                     |
|-----------------|---------------------|
| Test Type       | : Maximisation Test |
| Exposure routes | : Skin contact      |
| Species         | : Guinea pig        |
| Result          | : negative          |

### **Germ cell mutagenicity**

Not classified based on available information.

### **Components:**

#### **N,N-Dimethylacetamide:**

|                       |  |
|-----------------------|--|
| Genotoxicity in vitro | : Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative   |
| Genotoxicity in vivo  | : Test Type: Rodent dominant lethal test (germ cell) (in vivo)<br>Species: Rat<br>Application Route: Inhalation<br>Method: OECD Test Guideline 478<br>Result: negative |

#### **Fluralaner:**

|                       |  |
|-----------------------|--|
| Genotoxicity in vitro | : Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative |
|                       | Test Type: Mouse Lymphoma<br>Result: negative                            |

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Test Type: Chromosomal aberration  
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Cell type: Bone marrow  
Application Route: Oral  
Result: negative

### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

### **N,N-Diethyl-m-toluamide:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

### **Acetone:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

Test Type: Chromosome aberration test in vitro  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Result: negative

### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **N,N-Dimethylacetamide:**

Species : Rat  
Application Route : inhalation (vapour)  
Exposure time : 18 month(s)  
Result : negative

#### **Fluralaner:**



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|-----------------|------------------------------|-----------------------------|---|

Carcinogenicity - Assessment : No data available

### **N,N-Diethyl-m-toluamide:**

Species : Rat  
Application Route : Ingestion  
Exposure time : 104 weeks  
Result : negative

### **Acetone:**

Species : Mouse  
Application Route : Skin contact  
Exposure time : 424 days  
Result : negative

### **Reproductive toxicity**

May damage the unborn child.

### **Components:**

#### **N,N-Dimethylacetamide:**

Effects on fertility : Test Type: One-generation reproduction toxicity study  
Species: Rat  
Application Route: Inhalation  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Inhalation  
Result: positive

Reproductive toxicity - Assessment : Clear evidence of adverse effects on development, based on animal experiments.

#### **Fluralaner:**

Effects on fertility : Test Type: Two-generation study  
Species: Rat  
Application Route: Oral  
General Toxicity - Parent: NOAEL: 50 mg/kg body weight  
General Toxicity F1: LOAEL: 100 mg/kg body weight  
Result: No effects on fertility, Postimplantation loss., Adverse neonatal effects.

Effects on foetal development : Test Type: Development  
Species: Rat  
Application Route: Oral  
Developmental Toxicity: NOAEL: 100 mg/kg body weight  
Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses, No teratogenic effects

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Test Type: Development  
Species: Rabbit  
Application Route: Oral  
Developmental Toxicity: NOAEL: 10 mg/kg body weight  
Result: Skeletal malformations, Visceral malformations  
Remarks: Maternal toxicity observed.

Test Type: Development  
Species: Rabbit  
Application Route: Dermal  
Developmental Toxicity: NOAEL: 100 mg/kg body weight  
Result: Skeletal malformations

Reproductive toxicity - Assessment : Suspected of damaging the unborn child.

### **N,N-Diethyl-m-toluamide:**

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative

### **Acetone:**

Effects on fertility : Test Type: One-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rat  
Application Route: inhalation (vapour)  
Result: negative

### **STOT - single exposure**

Not classified based on available information.

### **Components:**

#### **Acetone:**

Assessment : May cause drowsiness or dizziness.

### **STOT - repeated exposure**

Not classified based on available information.

### **Repeated dose toxicity**

### **Components:**

#### **N,N-Dimethylacetamide:**

Species : Rat

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|                   |   |                       |
|-------------------|---|-----------------------|
| NOAEL             | : | 90 mg/m <sup>3</sup>  |
| LOAEL             | : | 360 mg/m <sup>3</sup> |
| Application Route | : | inhalation (vapour)   |
| Exposure time     | : | 24 Months             |

### Fluralaner:

|                   |   |  |
|-------------------|---|--|
| Species           | : | Dog  |
| NOAEL             | : | 1 mg/kg                                      |
| Application Route | : | Oral   |
| Exposure time     | : | 52 Weeks                                     |
| Target Organs     | : | Liver  |
| Remarks           | : | No significant adverse effects were reported |

|                   |   |                     |
|-------------------|---|---------------------|
| Species           | : | Rat                 |
| LOAEL             | : | 400 mg/kg           |
| Application Route | : | Oral                |
| Exposure time     | : | 90 Days             |
| Target Organs     | : | Liver, thymus gland |

|                   |   |  |
|-------------------|---|--|
| Species           | : | Rat  |
| NOAEL             | : | 500 mg/kg                                    |
| Application Route | : | Dermal                                       |
| Exposure time     | : | 90 Days                                      |
| Target Organs     | : | Liver  |
| Remarks           | : | No significant adverse effects were reported |

### Acetone:

|                   |   |             |
|-------------------|---|-------------|
| Species           | : | Rat         |
| NOAEL             | : | 900 mg/kg   |
| LOAEL             | : | 1.700 mg/kg |
| Application Route | : | Ingestion   |
| Exposure time     | : | 90 Days     |

|                   |   |                     |
|-------------------|---|---------------------|
| Species           | : | Rat                 |
| NOAEL             | : | 45 mg/l             |
| Application Route | : | inhalation (vapour) |
| Exposure time     | : | 8 Weeks             |

### Aspiration toxicity

Not classified based on available information.

### Components:

#### Fluralaner:

Not applicable

#### Acetone:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

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### 11.2 Information on other hazards

#### Endocrine disrupting properties

Not classified based on available information.

#### 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.

#### Experience with human exposure

#### Product:

Skin contact : Remarks: May irritate skin.  
Eye contact : Remarks: May cause eye irritation.

#### Components:

#### Fluralaner:

Skin contact : Remarks: May irritate skin.  
Eye contact : Remarks: May cause eye irritation.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

#### N,N-Dimethylacetamide:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 500 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 500 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Method: Directive 67/548/EEC, Annex V, C.2.

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): > 500 mg/l  
plants : Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): > 500 mg/l  
Exposure time: 72 h

Toxicity to microorganisms : EC10 : > 1.995 mg/l  
Exposure time: 30 min

#### Fluralaner:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0,0488 mg/l

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- Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0,015 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): >= 0,08 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility
- Toxicity to fish (Chronic toxicity) : NOEC: >= 0,049 mg/l  
Exposure time: 21 d  
Species: Zebrafish  
Method: OECD Test Guideline 204  
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0736 µg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211
- M-Factor (Chronic aquatic toxicity) : 1.000
- Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials
- EC10 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: Based on data from similar materials
- N,N-Diethyl-m-toluamide:**
- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 97 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 75 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Selenastrum capricornutum (green algae)): 41 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

NOEC (Selenastrum capricornutum (green algae)): 7,6 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 3,7 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

### Acetone:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 5.540 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 8.800 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 7.000 mg/l  
Exposure time: 96 h

Toxicity to microorganisms : EC50 : 61.150 mg/l  
Exposure time: 30 min  
Method: ISO 8192

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 79 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

## 12.2 Persistence and degradability

### Components:

#### **N,N-Dimethylacetamide:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 70 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C  
Remarks: The test was conducted equivalent or similar to guideline

#### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

Biodegradability : Result: Not readily biodegradable.

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Method: OECD Test Guideline 301F  
Remarks: Based on data from similar materials

### **N,N-Diethyl-m-toluamide:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 83,8 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

### **Acetone:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 91 %  
Exposure time: 28 d

## 12.3 Bioaccumulative potential

### Components:

#### **Fluralaner:**

Bioaccumulation : Species: Zebrafish  
Bioconcentration factor (BCF): 79,4  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 4,5

#### **Poly(oxy-1,2-ethanediyl), .alpha.-[(tetrahydro-2-furanyl)methyl]-.omega.-hydroxy-:**

Partition coefficient: n-octanol/water : log Pow: < 4  
Remarks: Calculation

#### **N,N-Diethyl-m-toluamide:**

Partition coefficient: n-octanol/water : log Pow: 2,02

#### **Acetone:**

Partition coefficient: n-octanol/water : log Pow: -0,27 - -0,23

## 12.4 Mobility in soil

### Components:

#### **Fluralaner:**

Distribution among environmental compartments : log Koc: 4,1

## 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

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very persistent and very bioaccumulative (vPvB) at levels of  
0.1% or higher.

### Components:

#### **Fluralaner:**

Assessment : Not persistent, bioaccumulative, and toxic (PBT).

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components consid-  
ered 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

No data available

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

|                        |   |
|------------------------|---|
| Product                | : Dispose of in accordance with local regulations.<br>According to the European Waste Catalogue, Waste Codes<br>are not product specific, but application specific.<br>Waste codes should be assigned by the user, preferably in<br>discussion with the waste disposal authorities.<br>Do not dispose of waste into sewer.  |
| Contaminated packaging | : Empty containers should be taken to an approved waste han-<br>dling site for recycling or disposal.<br>Empty containers retain residue and can be dangerous.<br>Do not pressurize, cut, weld, braze, solder, drill, grind, or ex-<br>pose such containers to heat, flame, sparks, or other sources<br>of ignition. They may explode and cause injury and/or death.<br>If not otherwise specified: Dispose of as unused product. |

---

## SECTION 14: Transport information

### 14.1 UN number or ID number

|      |           |
|------|-----------|
| ADN  | : UN 1090 |
| ADR  | : UN 1090 |
| RID  | : UN 1090 |
| IMDG | : UN 1090 |
| IATA | : UN 1090 |



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### 14.2 UN proper shipping name

|             |   |                                   |
|-------------|---|-----------------------------------|
| <b>ADN</b>  | : | ACETONE, SOLUTION                 |
| <b>ADR</b>  | : | ACETONE, SOLUTION                 |
| <b>RID</b>  | : | ACETONE, SOLUTION                 |
| <b>IMDG</b> | : | ACETONE, SOLUTION<br>(Fluralaner) |
| <b>IATA</b> | : | Acetone, solution                 |

### 14.3 Transport hazard class(es)

|             | Class | Subsidiary risks |
|-------------|-------|------------------|
| <b>ADN</b>  | : 3   |                  |
| <b>ADR</b>  | : 3   |                  |
| <b>RID</b>  | : 3   |                  |
| <b>IMDG</b> | : 3   |                  |
| <b>IATA</b> | : 3   |                  |

### 14.4 Packing group

|                                      |                     |
|--------------------------------------|---------------------|
| <b>ADN</b>                           |                     |
| Packing group                        | : II                |
| Classification Code                  | : F1                |
| Hazard Identification Number         | : 33                |
| Labels                               | : 3                 |
| <b>ADR</b>                           |                     |
| Packing group                        | : II                |
| Classification Code                  | : F1                |
| Hazard Identification Number         | : 33                |
| Labels                               | : 3                 |
| Tunnel restriction code              | : (D/E)             |
| <b>RID</b>                           |                     |
| Packing group                        | : II                |
| Classification Code                  | : F1                |
| Hazard Identification Number         | : 33                |
| Labels                               | : 3                 |
| <b>IMDG</b>                          |                     |
| Packing group                        | : II                |
| Labels                               | : 3                 |
| EmS Code                             | : F-E, S-D          |
| <b>IATA (Cargo)</b>                  |                     |
| Packing instruction (cargo aircraft) | : 364               |
| Packing instruction (LQ)             | : Y341              |
| Packing group                        | : II                |
| Labels                               | : Flammable Liquids |

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### IATA (Passenger)

|  |   |                   |
|--|---|-------------------|
| Packing instruction (passenger aircraft) | : | 353               |
| Packing instruction (LQ)                 | : | Y341              |
| Packing group                            | : | II                |
| Labels                                   | : | Flammable Liquids |

### 14.5 Environmental hazards

#### ADN

Environmentally hazardous : yes

#### ADR

Environmentally hazardous : yes

#### RID

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes

### 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

Remarks : 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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | : | Conditions of restriction for the following entries should be considered:<br>Number on list 3<br><br>Number on list 30: N,N-Dimethylacetamide<br><br>Number on list 72: N,N-Dimethylacetamide<br><br>Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.<br><br>Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the |
|--|---|--|

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restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): N,N-Dimethylacetamide

REACH - List of substances subject to authorisation (Annex XIV): Not applicable

Regulation (EU) No 2024/590 on substances that deplete the ozone layer: Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast): Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point. Acetone (ANNEX II)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

|     |                       | Quantity 1 | Quantity 2 |
|-----|-----------------------|------------|------------|
| E1  | ENVIRONMENTAL HAZARDS | 100 t      | 200 t      |
| P5c | FLAMMABLE LIQUIDS     | 5.000 t    | 50.000 t   |

### Other regulations:

Note the Working Environment Act § 4-1 and § 4-2 on requirements for the employer to protect pregnant employees against discomfort and injury as a result of the work situation and the working environment.

Note the regulation on organization, leadership and participation, chapter 12 on the work of children and young people.

### The components of this product are reported in the following inventories:

AICS : not determined

CA. DSL : not determined

IECSC : not determined

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

#### Full text of H-Statements

|        |   |
|--------|---|
| H225   | : Highly flammable liquid and vapour.                   |
| H302   | : Harmful if swallowed.                                 |
| H312   | : Harmful in contact with skin.                         |
| H315   | : Causes skin irritation.                               |
| H319   | : Causes serious eye irritation.                        |
| H332   | : Harmful if inhaled.                                   |
| H336   | : May cause drowsiness or dizziness.                    |
| H360D  | : May damage the unborn child.                          |
| H361d  | : Suspected of damaging the unborn child.               |
| H410   | : Very toxic to aquatic life with long lasting effects. |
| EUH066 | : Repeated exposure may cause skin dryness or cracking. |

#### Full text of other abbreviations

|                            |  |
|----------------------------|--|
| Acute Tox.                 | : Acute toxicity   |
| Aquatic Chronic            | : Long-term (chronic) aquatic hazard   |
| Eye Irrit.                 | : Eye irritation   |
| Flam. Liq.                 | : Flammable liquids  |
| Repr.                      | : Reproductive toxicity  |
| Skin Irrit.                | : Skin irritation  |
| STOT SE                    | : Specific target organ toxicity - single exposure   |
| 2000/39/EC                 | : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values   |
| 2004/37/EC                 | : Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work - Annex III |
| FOR-2011-12-06-1358        | : Norway. Occupational Exposure limits   |
| 2000/39/EC / TWA           | : Limit Value - eight hours  |
| 2000/39/EC / STEL          | : Short term exposure limit  |
| 2004/37/EC / STEL          | : Short term exposure limit  |
| 2004/37/EC / TWA           | : Long term exposure limit   |
| FOR-2011-12-06-1358 / TWA  | : Long term exposure limit   |
| FOR-2011-12-06-1358 / STEL | : Short term exposure limit  |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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 as-

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sociated with x% growth rate response; GHS - Globally Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

### Classification of the mixture:

|                   |       |
|-------------------|-------|
| Flam. Liq. 2      | H225  |
| Repr. 1B          | H360D |
| Aquatic Chronic 1 | H410  |

### Classification procedure:

|                                     |
|-------------------------------------|
| Based on product data or assessment |
| Calculation method                  |
| Calculation method                  |

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

NO / EN