SAFETY DATA SHEET

Enilconazole Smoke Formulation

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Enilconazole Smoke Formulation

Manufacturer or supplier’s details
Company : MSD
Address : 91-105 Harpin Street
          Bendigo 3550, Victoria Australia
Telephone : 908-740-4000
Emergency telephone number : 1 800 033 461
E-mail address : EHSDATASTEWARD@msd.com
Telefax : 1 800 817 414

Recommended use of the chemical and restrictions on use
Recommended use : Veterinary product

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Oxidizing solids : Category 1
Serious eye damage/eye irritation : Category 2A
Carcinogenicity : Category 2
Specific target organ toxicity - repeated exposure : Category 2 (Liver)

GHS label elements
Hazard pictograms : [Images of hazard symbols]
Signal word : Danger
Hazard statements : H271 May cause fire or explosion; strong oxidizer.
                   H319 Causes serious eye irritation.
                   H351 Suspected of causing cancer.
                   H373 May cause damage to organs (Liver) through prolonged or repeated exposure.
Supplemental Hazard Statements : AUH032 Contact with acids liberates very toxic gas.
Precautionary statements:

**Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat.
P220 Keep/ Store away from clothing/ combustible materials.
P221 Take any precaution to avoid mixing with combustibles.
P260 Do not breathe dust.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281 Use personal protective equipment as required.
P283 Wear fire/ flame resistant/ retardant clothing.

**Response:**
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Storage:**
P405 Store locked up.

**Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification**
Contact with dust can cause mechanical irritation or drying of the skin. May form explosive dust-air mixture during processing, handling or other means.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

**Components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>&gt;= 30 - &lt; 60</td>
</tr>
<tr>
<td>1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole</td>
<td>35554-44-0</td>
<td>&gt;= 10 - &lt; 30</td>
</tr>
<tr>
<td>Potassium chlorate</td>
<td>3811-04-9</td>
<td>&gt;= 10 - &lt; 30</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical ad-
If inhaled:
If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact:
In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention.

If swallowed:
If swallowed, DO NOT induce vomiting.
Get medical attention.

Most important symptoms and effects, both acute and delayed:
Causes serious eye irritation.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
Contact with dust can cause mechanical irritation or drying of the skin.

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).

Notes to physician:
Treat symptomatically and supportively.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media:
None known.

Specific hazards during firefighting:
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products:
Carbon oxides
Chlorine compounds
Metal oxides

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

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

Hazchem Code: 1Y

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures:
  - Evacuate personnel to safe areas.
  - Only trained personnel should re-enter the area.
  - Remove all sources of ignition.
  - Use personal protective equipment.
  - Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

- Environmental precautions:
  - Avoid release to the environment.
  - Prevent further leakage or spillage if safe to do so.
  - Retain and dispose of contaminated wash water.
  - Local authorities should be advised if significant spillages cannot be contained.

- Methods and materials for containment and cleaning up:
  - Non-sparking tools should be used.
  - Soak up with inert absorbent material.
  - Sweep up or vacuum up spillage and collect in suitable container for disposal.
  - Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
  - Flush with water.
  - Suppress (knock down) gases/vapours/mists with a water spray jet.
  - Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
  - 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.

SECTION 7. HANDLING AND STORAGE

- Technical measures:
  - Static electricity may accumulate and ignite suspended dust causing an explosion.
  - Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

- Local/Total ventilation:
  - Use only with adequate ventilation.
  - If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

- Advice on safe handling:
  - Do not breathe dust.
  - Do not swallow.
  - Do not get in eyes.
  - Avoid prolonged or repeated contact with skin.
  - Wash skin thoroughly after handling.
  - Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-
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, industrial hygiene monitoring, medical surveillance and the use of administrative controls.


Materials to avoid: Do not store with the following product types:
- Self-reactive substances and mixtures
- Organic peroxides
- Flammable gases
- Flammable liquids
- Pyrophoric liquids
- Pyrophoric solids
- Self-heating substances and mixtures
- Substances and mixtures, which in contact with water, emit flammable gases
- Explosives
- Corrosive Substances

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talc</td>
<td>14807-96-6</td>
<td>TWA</td>
<td>2.5 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>1-(2-(Allyloxy)-2-(2,4-</td>
<td>35554-44-0</td>
<td>TWA</td>
<td>0.3 mg/m³ (OEB)</td>
<td>Internal</td>
</tr>
</tbody>
</table>
### Enilconazole Smoke Formulation

**Version**: 4.0  
**Revision Date**: 10.10.2020  
**SDS Number**: 785462-00013  
**Date of last issue**: 23.03.2020  
**Date of first issue**: 28.06.2016

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Date of last issue</th>
<th>Date of first issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>dichlorophenyl(ethyl-1H-imidazole</td>
<td></td>
<td>2020-03-23</td>
<td>2016-06-28</td>
</tr>
</tbody>
</table>

**Further information**: Skin

**Engineering measures**: Use feasible engineering controls to minimize exposure to compound. All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

**Personal protective equipment**

<table>
<thead>
<tr>
<th>Component</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory protection</td>
<td>If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.</td>
</tr>
<tr>
<td>Filter type</td>
<td>Particulates type</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Chemical-resistant gloves</td>
</tr>
<tr>
<td>Remarks</td>
<td>Take note that the product is flammable, which may impact the selection of hand protection.</td>
</tr>
<tr>
<td>Eye protection</td>
<td>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.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Work uniform or laboratory coat.</td>
</tr>
</tbody>
</table>

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>powder</td>
</tr>
<tr>
<td>Colour</td>
<td>Grey-brown</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>May form explosive dust-air mixture during processing, handling or other means.</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**SAFETY DATA SHEET**

**Enilconazole Smoke Formulation**

<table>
<thead>
<tr>
<th>Version</th>
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</tr>
</thead>
<tbody>
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<td>10.10.2020</td>
<td>785462-00013</td>
<td>23.03.2020</td>
<td>28.06.2016</td>
</tr>
</tbody>
</table>

- Upper explosion limit / Upper flammability limit: No data available
- Lower explosion limit / Lower flammability limit: No data available
- Vapour pressure: No data available
- Relative vapour density: No data available
- Relative density: No data available

**SECTION 10. STABILITY AND REACTIVITY**

- **Reactivity**: May cause fire or explosion; strong oxidizer.
- **Chemical stability**: Stable under normal conditions.
- **Possibility of hazardous reactions**: May form explosive dust-air mixture during processing, handling or other means. Exposure to metals, combustible or organic materials can cause a violent reaction or ignition. May cause fire or explosion; strong oxidizer.

- **Conditions to avoid**: Heat, flames and sparks. Avoid dust formation.
- **Incompatible materials**: Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents, flammable materials, organic materials.
- **Hazardous decomposition products**: No hazardous decomposition products are known.
SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation, Skin contact, Ingestion, Eye contact

Acute toxicity
Not classified based on available information.

Product:

Acute oral toxicity: LD50 (Rat): 2,100 - 2,800 mg/kg

Acute inhalation toxicity: LC0 (Rat): 10.73 mg/l
Test atmosphere: dust/mist
Remarks: No mortality observed at this dose.

Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg
LD50 (Rabbit): > 0.6 ml/kg

Components:

Talc:

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Remarks: Based on data from similar materials

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

Acute oral toxicity: LD50 (Rat): 227 mg/kg
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI
LD50 (Mouse): 390 - 620 mg/kg
LD50 (Dog): > 640 mg/kg

Acute inhalation toxicity: LC50 (Rat): 1.84 - 2.88 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity: LD50 (Rat): 4,200 - 4,800 mg/kg
LD50 (Rabbit): 4,200 mg/kg

Acute toxicity (other routes of administration): LD50 (Rat): 155 mg/kg
Application Route: Intraperitoneal

Potassium chlorate:

Acute oral toxicity: LD50 (Rat): > 300 - 2,000 mg/kg
Remarks: Based on data from similar materials
SAFETY DATA SHEET

Enilconazole Smoke Formulation

Acute inhalation toxicity:
- LC50 (Rat): > 5.1 mg/l
- Exposure time: 4 h
- Test atmosphere: dust/mist
- Method: OECD Test Guideline 436
- Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity:
- LD50 (Rat): > 2,000 mg/kg
- Method: OECD Test Guideline 402
- Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation:
Not classified based on available information.

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

Components:

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

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:
- Species: Rabbit
- Result: Mild skin irritation

Potassium chlorate:
- Species: Rabbit
- Result: No skin irritation
- Remarks: Based on data from similar materials

Serious eye damage/eye irritation:
Causes serious eye irritation.

Product:
- Species: Rabbit
- Result: Moderate eye irritation

Components:

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

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:
- Species: Rabbit
- Result: Irreversible effects on the eye
- Remarks: Based on harmonised classification in EU regulation
### SAFETY DATA SHEET

**Enilconazole Smoke Formulation**

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>10.10.2020</td>
<td>785462-00013</td>
<td>23.03.2020</td>
<td>28.06.2016</td>
</tr>
</tbody>
</table>

#### Species: Rabbit

**Result**: Moderate eye irritation

**Remarks**: Based on harmonised classification in EU regulation 1272/2008, Annex VI

#### Potassium chlorate:

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>No eye irritation</td>
<td>OECD Test Guideline 405</td>
</tr>
</tbody>
</table>

#### Respiratory or skin sensitisation

**Skin sensitisation**
Not classified based on available information.

**Respiratory sensitisation**
Not classified based on available information.

#### Product:

<table>
<thead>
<tr>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea pig</td>
<td>Not a skin sensitizer.</td>
</tr>
</tbody>
</table>

#### Components:

**Talc**:

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>Humans</td>
<td>negative</td>
</tr>
</tbody>
</table>

**1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole**:

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Exposure routes</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximisation Test</td>
<td>Dermal</td>
<td>Guinea pig</td>
<td>equivocal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Dermal</th>
<th>Humans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
<td>Not a skin sensitizer.</td>
<td></td>
</tr>
</tbody>
</table>

#### Potassium chlorate:

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Exposure routes</th>
<th>Species</th>
<th>Method</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximisation Test</td>
<td>Skin contact</td>
<td>Guinea pig</td>
<td>OECD Test Guideline 406</td>
<td>negative</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dermal</td>
<td>Humans</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10 / 19
Chronic toxicity

Germ cell mutagenicity
Not classified based on available information.

Components:

**Talc:**

<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Genotoxicity in vivo</th>
<th>Test Type: Chromosome aberration test in vitro</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Species: Rat</td>
</tr>
<tr>
<td></td>
<td>Application Route: Ingestion</td>
</tr>
<tr>
<td></td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

**1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:**

<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Test Type: Bacterial reverse mutation assay (AMES)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

| Test Type: Chromosomal aberration |
| Test system: Human lymphocytes |
| Result: negative                      |

| Test Type: gene mutation test |
| Test system: Chinese hamster fibroblasts |
| Result: negative              |

| Test Type: unscheduled DNA synthesis assay |
| Test system: rat hepatocytes |
| Result: negative |

<table>
<thead>
<tr>
<th>Genotoxicity in vivo</th>
<th>Test Type: Micronucleus test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Species: Rat</td>
</tr>
<tr>
<td></td>
<td>Application Route: Oral</td>
</tr>
<tr>
<td></td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

| Test Type: Micronucleus test |
| Species: Mouse |
| Application Route: Oral |
| Result: negative |

| Test Type: Rodent dominant lethal test (germ cell) (in vivo) |
| Species: Mouse |
| Result: negative |

**Potassium chloride:**

<table>
<thead>
<tr>
<th>Genotoxicity in vitro</th>
<th>Test Type: Bacterial reverse mutation assay (AMES)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Method: OECD Test Guideline 471</td>
</tr>
<tr>
<td></td>
<td>Result: negative</td>
</tr>
</tbody>
</table>

| Test Type: In vitro mammalian cell gene mutation test |
| Method: OECD Test Guideline 476                      |
Result: negative  
Remarks: Based on data from similar materials  

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)  
Method: OECD Test Guideline 482  
Result: negative  
Remarks: Based on data from similar materials  

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Ingestion  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials  

Carcinogenicity  
Suspected of causing cancer.  

Components:  

Talc:  
Species: Mouse  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 2 Years  
Result: negative  

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:  
Species: Rat  
Application Route: Oral  
Exposure time: 2 Years  
NOAEL: 40 mg/kg body weight  
Result: negative  

Species: Mouse  
Application Route: Oral  
Exposure time: 2 Years  
LOAEL: 33 mg/kg body weight  
Result: positive  
Target Organs: Liver  

Species: Mouse  
Application Route: Oral (feed)  
Exposure time: 23 Months  
NOAEL: 8 mg/kg body weight  
LOAEL: 105 mg/kg body weight  
Result: positive  
Target Organs: Liver  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI  

Carcinogenicity - Assessment: Limited evidence of carcinogenicity in animal studies
Potassium chlorate:

<table>
<thead>
<tr>
<th>Species</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Exposure time</td>
<td>106 weeks</td>
</tr>
<tr>
<td>Result</td>
<td>negative</td>
</tr>
<tr>
<td>Remarks</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

Reproductive toxicity
Not classified based on available information.

Components:

Talc:

<table>
<thead>
<tr>
<th>Effects on foetal development</th>
<th>Test Type: Embryo-foetal development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Result</td>
<td>negative</td>
</tr>
</tbody>
</table>

1-(2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

<table>
<thead>
<tr>
<th>Effects on fertility</th>
<th>Test Type: Multi-generation study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>Application Route</td>
<td>Oral</td>
</tr>
<tr>
<td>General Toxicity</td>
<td>Parent: NOAEL: 20 mg/kg body weight</td>
</tr>
<tr>
<td>Result</td>
<td>Maternal toxicity observed, Embryotoxic effects and adverse effects on the offspring were detected.</td>
</tr>
<tr>
<td>Remarks</td>
<td>Not classified due to data which are conclusive although insufficient for classification.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects on foetal development</th>
<th>Test Type: Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>Application Route</td>
<td>Oral</td>
</tr>
<tr>
<td>Developmental Toxicity</td>
<td>LOAEL: 80 mg/kg body weight</td>
</tr>
<tr>
<td>Result</td>
<td>Reduced foetal weight, Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses</td>
</tr>
<tr>
<td>Remarks</td>
<td>The effects were seen only at maternally toxic doses.</td>
</tr>
</tbody>
</table>

Test Type: Development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: LOAEL: 10 mg/kg body weight
Result: Maternal toxicity observed., No teratogenic effects, Postimplantation loss.
Remarks: The effects were seen only at maternally toxic doses.

Potassium chlorate:

<table>
<thead>
<tr>
<th>Effects on fertility</th>
<th>Test Type: Two-generation reproduction toxicity study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Rat</td>
</tr>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Method</td>
<td>OECD Test Guideline 416</td>
</tr>
<tr>
<td>Result</td>
<td>negative</td>
</tr>
</tbody>
</table>
Effects on foetal development:
- Test Type: Embryo-foetal development
- Species: Rat
- Application Route: Ingestion
- Result: negative
- Remarks: Based on data from similar materials

**STOT - single exposure**
Not classified based on available information.

**STOT - repeated exposure**
May cause damage to organs (Liver) through prolonged or repeated exposure.

**Components:**
1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:
- Target Organs: Liver
- Assessment: May cause damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**
1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:
- Species: Rat
- NOAEL: 5 mg/kg
- LOAEL: 20 mg/kg
- Application Route: Oral
- Exposure time: 3 - 24 Months
- Target Organs: Liver
- Symptoms: decrease in appetite

- Species: Dog
- NOAEL: 2.5 mg/kg
- LOAEL: 20 mg/kg
- Application Route: Oral
- Exposure time: 12 Months
- Symptoms: Salivation, Vomiting

- Species: Mouse
- NOAEL: 12 mg/kg
- LOAEL: 140 mg/kg
- Application Route: Oral
- Exposure time: 3 Months
- Target Organs: Liver

**Potassium chlorate:**
- Species: Rat
- NOAEL: > 100 mg/kg
- Application Route: Ingestion
- Exposure time: 90 Days
- Remarks: Based on data from similar materials
Aspiration toxicity
Not classified based on available information.

Experience with human exposure

Components:

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

<table>
<thead>
<tr>
<th>Contact</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>pruritis, skin rash, Skin irritation</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Eye irritation</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Nausea</td>
</tr>
</tbody>
</table>

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Talc:

<table>
<thead>
<tr>
<th>Component</th>
<th>LC50 (Brachydanio rerio (zebrafish)): &gt; 100,000 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>Exposure time: 24 h</td>
</tr>
</tbody>
</table>

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

<table>
<thead>
<tr>
<th>Component</th>
<th>LC50 (Oncorhynchus mykiss (rainbow trout)): 1.48 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td></td>
<td>Method: OECD Test Guideline 203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>LC50 (Lepomis macrochirus (Bluegill sunfish)): 3.99 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>Exposure time: 96 h</td>
</tr>
<tr>
<td></td>
<td>Method: OECD Test Guideline 203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>EC50 (Daphnia magna (Water flea)): 3.54 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to daphnia and</td>
<td>Exposure time: 48 h</td>
</tr>
<tr>
<td>other aquatic invertebrates</td>
<td>Method: OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>EC50 (Pseudokirchneriella subcapitata (green algae)): 1.2 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to algae/aquatic</td>
<td>Exposure time: 72 h</td>
</tr>
<tr>
<td>plants</td>
<td>Method: OECD Test Guideline 201</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>NOEC (Pseudokirchneriella subcapitata (green algae)): 0.457 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to daphnia and</td>
<td>Exposure time: 72 h</td>
</tr>
<tr>
<td>other aquatic invertebrates</td>
<td>Method: OECD Test Guideline 201</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>NOEC (Daphnia magna (Water flea)): &lt; 0.007 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to daphnia and</td>
<td>Exposure time: 21 d</td>
</tr>
<tr>
<td>other aquatic invertebrates</td>
<td>Method: OECD Test Guideline 211</td>
</tr>
</tbody>
</table>

Potassium chlorate:

<table>
<thead>
<tr>
<th>Component</th>
<th>LC50 (Oncorhynchus mykiss (rainbow trout)): &gt; 100 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>Exposure time: 96 h</td>
</tr>
</tbody>
</table>
Toxicity to daphnia and other aquatic invertebrates:

- EC50 (Daphnia magna (Water flea)): > 100 mg/l
- Exposure time: 48 h
  Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants:

- ErC50: 1.9 mg/l
- Exposure time: 72 h
- NOEC: 0.5 mg/l
  Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity):

- NOEC (Danio rerio (zebra fish)): > 1 mg/l
- Exposure time: 36 d
  Method: OECD Test Guideline 210
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

- NOEC (Daphnia magna (Water flea)): > 1 mg/l
- Exposure time: 21 d
  Method: OECD Test Guideline 211
  Remarks: Based on data from similar materials

Toxicity to microorganisms:

- EC50: > 1,000 mg/l
- Exposure time: 3 h
  Method: OECD Test Guideline 209
  Remarks: Based on data from similar materials

Persistence and degradability

Components:

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

Biodegradability:

- Result: not rapidly degradable
- Biodegradation: 50%
- Exposure time: 166 d

Bioaccumulative potential

Components:

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

Partition coefficient: n-octanol/water:

- log Pow: 3.82

Mobility in soil

Components:

1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole:

Distribution among environmental compartments:

- log Koc: 3.82

Other adverse effects

No data available
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with local regulations.
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number: UN 1485
Proper shipping name: POTASSIUM CHLORATE MIXTURE
Class: 5.1
Packing group: II
Labels: 5.1

IATA-DGR
UN/ID No.: UN 1485
Proper shipping name: Potassium chlorate mixture
Class: 5.1
Packing group: II
Labels: Oxidizer
Packing instruction (cargo aircraft): 562
Packing instruction (passenger aircraft): 558

IMDG-Code
UN number: UN 1485
Proper shipping name: POTASSIUM CHLORATE MIXTURE
(1-[2-(Allyloxy)-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole)
Class: 5.1
Packing group: II
Labels: 5.1
EmS Code: F-H, S-Q
Marine pollutant: yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations

ADG
UN number: UN 1485
Proper shipping name: POTASSIUM CHLORATE MIXTURE
Class: 5.1
Packing group: II
Labels: 5.1
Hazchem Code: 1Y

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.
Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

Prohibition/Licensing Requirements: There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

The components of this product are reported in the following inventories:
AICS : not determined
DSL : not determined
IECSC : not determined

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 10.10.2020

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

Date format: dd.mm.yyyy

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA
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.

AU / EN