1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Ethion / Chlorpyrifos / Alpha-Cypermethrin Formulation

Manufacturer or supplier’s details
Company: MSD
Address: JL Raya Pandaan KM. 48
Pandaan, Jawa Timur - Indonesia
Telephone: 908-740-4000
Emergency telephone number: 1-908-423-6000
E-mail address: EHSDATASTEWARD@msd.com
Telefax: 908-735-1496

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

2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Category 3
Acute toxicity (Oral): Category 3
Acute toxicity (Inhalation): Category 4
Acute toxicity (Dermal): Category 3
Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 1
Germ cell mutagenicity: Category 1B
Carcinogenicity: Category 1B
Reproductive toxicity: Category 1B
Specific target organ toxicity - single exposure: Category 1 (Central nervous system)
Specific target organ toxicity - single exposure: Category 3
Specific target organ toxicity - Category 1 (Central nervous system)
repeated exposure

Aspiration hazard : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H301 + H311 Toxic if swallowed or in contact with skin.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H360FD May damage fertility. May damage the unborn child.
H370 Causes damage to organs (Central nervous system).
H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

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/ sparks/ open flames/ hot surfaces. No smoking.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td>Chemical name</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light aromatic</td>
<td>64742-95-6</td>
</tr>
<tr>
<td>Ethion</td>
<td>563-12-2</td>
</tr>
<tr>
<td>Chlorpyrifos</td>
<td>2921-88-2</td>
</tr>
<tr>
<td>2-Methyl-1-propanol</td>
<td>78-83-1</td>
</tr>
<tr>
<td>(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate</td>
<td>67375-30-8</td>
</tr>
<tr>
<td>Hydrocarbons, C10, aromatics, &lt;1% naphthalene</td>
<td>64742-94-5</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>128-37-0</td>
</tr>
</tbody>
</table>
General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing 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 immediately.

If swallowed: If swallowed, DO NOT induce vomiting. If vomiting occurs have person lean forward. Call a physician or poison control centre immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Toxic if swallowed or in contact with skin. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. Harmful if inhaled. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May damage fertility. May damage the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

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.

5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: 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.
SAFETY DATA SHEET
Ethion / Chlorpyrifos / Alpha-Cypermethrin 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>3.5</td>
<td>2020/03/23</td>
<td>935013-00008</td>
<td>2019/09/13</td>
<td>2016/10/12</td>
</tr>
</tbody>
</table>

Hazardous combustion products:
- Carbon oxides
- Sulphur oxides
- Oxides of phosphorus
- Chlorine compounds
- Nitrogen oxides (NOx)

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.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Remove all sources of ignition.
- Use personal protective equipment.
- Follow safe handling advice and personal protective equipment recommendations.

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

Methods and materials for containment and 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.

7. HANDLING AND STORAGE

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

Local/Total ventilation:
- If sufficient ventilation is unavailable, use with local exhaust 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 get on skin or clothing.
- Do not breathe vapours or spray mist.
- Do not swallow.
- Do not get in 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 and sources of ignition.
- Take precautionary measures against static discharges.
- Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage:
- 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.

Materials to avoid:
- Do not store with the following product types:
  - Self-reactive substances and mixtures
  - Organic peroxides
  - Oxidizing agents
  - Flammable gases
  - Pyrophoric liquids
  - Pyrophoric solids
  - Self-heating substances and mixtures
  - Poisonous gases
  - Explosives

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>Solvent naphtha (petroleum), light aromatic</td>
<td>64742-95-6</td>
<td>TWA</td>
<td>200 mg/m³ (total hydrocarbon vapor)</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Ethion</td>
<td>563-12-2</td>
<td>NAB</td>
<td>0.4 mg/m³</td>
<td>ID OEL</td>
</tr>
<tr>
<td>Chlorpyrifos</td>
<td>2921-88-2</td>
<td>NAB</td>
<td>0.2 mg/m³</td>
<td>ID OEL</td>
</tr>
</tbody>
</table>

Further information: Cholinesterase inhibitors, Identifies chemicals that need a BEI (= Biological Exposure Indices)

- TWA (Inhalable fraction and vapor) | 0.05 mg/m³ | ACGIH

Further information: Adopted in Year 1996, Not classified as carcinogenic to humans. Not enough data to classify these materials as carcinogenic to humans or animals. Skin
Ethion / Chlorpyrifos / Alpha-Cypermethrin
Formulation

TWA (Inhalable fraction and vapor) | 0.1 mg/m³ | ACGIH
---|---|---
2-Methyl-1-propanol | 78-83-1 | NAB | 50 ppm | ID OEL |
| | | | 152 mg/m³ | |
2,6-Di-tert-butyl-p-cresol | 128-37-0 | NAB | 10 mg/m³ | ID OEL |

Further information: Adopted in Year 1996, Not classified as carcinogenic to humans. Not enough data to classify these materials as carcinogenic to humans or animals.

TWA (Inhalable fraction and vapor) | 2 mg/m³ | ACGIH

Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>2921-88-2</td>
<td>Acetylcholinesterase activity</td>
<td>In red blood cells</td>
<td>End of shift</td>
<td>70 % of an individual's baseline</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Butyrylcholinesterase activity</td>
<td>In serum or plasma</td>
<td>End of shift</td>
<td>60 % of an individual's baseline</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

Engineering measures
- Minimize workplace exposure concentrations.
- If sufficient ventilation is unavailable, use with local exhaust ventilation.
- If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

Personal protective equipment

Respiratory protection
- If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type
Combines particulates and organic vapour type

Hand protection
Material: Chemical-resistant gloves

Remarks
Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Take note that the product is flammable, which may impact the selection of hand protection. Wash hands before breaks and at the end of workday.

Eye protection
- Wear the following personal protective equipment:

Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment: If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic protective clothing. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>strong</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>43 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.96 - 1.02</td>
</tr>
</tbody>
</table>
Density: No data available

Solubility(ies):
- Water solubility: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity:
- Viscosity, kinematic: No data available

Explosive properties: Not explosive

Oxidizing properties: The substance or mixture is not classified as oxidizing.

Molecular weight: No data available

Particle size: No data available

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:
- Flammable liquid and vapour.
- Vapours may form explosive mixture with air.
- Can react with strong oxidizing agents.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

Acute toxicity:
- Toxic if swallowed or in contact with skin.
- Harmful if inhaled.

Product:

Acute oral toxicity: Acute toxicity estimate: 70.32 mg/kg
Method: Calculation method

Acute inhalation toxicity: Acute toxicity estimate: 1.64 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Calculation method

Acute dermal toxicity: Acute toxicity estimate: 376.23 mg/kg
Method: Calculation method

**Components:**

**Solvent naphtha (petroleum), light aromatic:**

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

Acute inhalation toxicity: LC50 (Rat): > 5.61 mg/l
Exposure time: 4 h
Test atmosphere: vapour

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

**Ethion:**

Acute oral toxicity: LD50 (Rat): 13 mg/kg

Acute inhalation toxicity: LC50 (Rat): 0.450 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity: LD50 (Rat): 62 mg/kg

**Chlorpyrifos:**

Acute oral toxicity: LD50 (Rat): 82 mg/kg

Acute inhalation toxicity: LC50 (Rat): 0.385 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity: LD50 (Rat): 1,250 - 2,000 mg/kg

**2-Methyl-1-propanol:**

Acute oral toxicity: LD50 (Rat): 3,350 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: LC50 (Rat): > 24.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity: LD50 (Rabbit): 2,460 mg/kg
Method: OECD Test Guideline 402

**(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:**

Acute oral toxicity: LD50 (Rat): 57 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
Acute inhalation toxicity: LC50 (Rat): > 1.16 - 1.21 mg/l
   Exposure time: 4 h
   Test atmosphere: dust/mist

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

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

Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
   Method: OECD Test Guideline 420
   Remarks: Based on data from similar materials

Acute inhalation toxicity: LC50 (Rat): > 4.778 mg/l
   Exposure time: 4 h
   Test atmosphere: dust/mist
   Method: OECD Test Guideline 403
   Remarks: Based on data from similar materials

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
   Method: OECD Test Guideline 402
   Assessment: The substance or mixture has no acute dermal toxicity
   Remarks: Based on data from similar materials

**2,6-Di-tert-butyl-p-cresol:**

Acute oral toxicity: LD50 (Rat): > 6,000 mg/kg
   Method: OECD Test Guideline 401

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**
Causes skin irritation.

**Components:**

**Solvent naphtha (petroleum), light aromatic:**

Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

**Ethion:**

Species: Rabbit
Result: Mild skin irritation

**Chlorpyrifos:**

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

2-Methyl-1-propanol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Species: Rabbit
Result: Skin irritation

Hydrocarbons, C10, aromatics, <1% naphthalene:
Assessment: Repeated exposure may cause skin dryness or cracking.

2,6-Di-tert-butyl-p-cresol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Based on data from similar materials

Serious eye damage/eye irritation
Causes serious eye damage.

Components:
Solvent naphtha (petroleum), light aromatic:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

Ethion:
Result: No eye irritation

Chlorpyrifos:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

2-Methyl-1-propanol:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Species: Rabbit
Result : No eye irritation

**Hydrocarbons, C10, aromatics, <1% naphthalene:**
Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

**2,6-Di-tert-butyl-p-cresol:**
Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Based on data from similar materials

**Respiratory or skin sensitisation**

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

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

**Components:**

**Solvent naphtha (petroleum), light aromatic:**
Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

**Ethion:**
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

**Chlorpyrifos:**
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

**2-Methyl-1-propanol:**
Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative
Remarks : Based on data from similar materials
(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Hydrocarbons, C10, aromatics, <1% naphthalene:

Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

2,6-Di-tert-butyl-p-cresol:

Test Type: Human repeat insult patch test (HRIPT)
Exposure routes: Skin contact
Species: Humans
Result: negative

Germ cell mutagenicity
May cause genetic defects.

Components:

Solvent naphtha (petroleum), light aromatic:

Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Result: positive

Genotoxicity in vivo: Test Type: Sister chromatid exchange analysis in spermatogonia
Species: Mouse
Application Route: Intraperitoneal injection
Result: positive

Germ cell mutagenicity - Assessment: Positive result(s) from in vivo heritable germ cell mutagenicity tests in mammals

Ethion:

Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative
Test Type: In vitro sister chromatid exchange assay in mam-
<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Species</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>in vitro micronucleus test</td>
<td>positive</td>
<td>Mouse</td>
<td>Application Route: Ingestion</td>
</tr>
<tr>
<td>Chromosomal aberration</td>
<td>negative</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>In vivo micronucleus test</td>
<td>positive</td>
<td>Mouse</td>
<td></td>
</tr>
<tr>
<td>Germline mutagenicity - Assessment</td>
<td>Weight of evidence does not support classification as a germ cell mutagen.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chlorpyrifos:**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Species</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial reverse mutation assay (AMES)</td>
<td>negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)</td>
<td>positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In vivo mammalian alkaline comet assay</td>
<td>positive</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)</td>
<td>negative</td>
<td>Mouse</td>
<td></td>
</tr>
</tbody>
</table>

**2-Methyl-1-propanol:**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Result</th>
<th>Species</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial reverse mutation assay (AMES)</td>
<td>negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromosome aberration test in vitro</td>
<td>negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In vitro mammalian cell gene mutation test</td>
<td>negative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)</td>
<td></td>
<td>Mouse</td>
<td>Application Route: Ingestion Method: OECD Test Guideline 474</td>
</tr>
</tbody>
</table>
Result: negative

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:

Genotoxicity in vitro:
- Test Type: Bacterial reverse mutation assay (AMES)
  Method: OECD Test Guideline 471
  Result: negative
- Test Type: Chromosome aberration test in vitro
  Method: OECD Test Guideline 473
  Result: negative
- Test Type: In vitro mammalian cell gene mutation test
  Method: OECD Test Guideline 476
  Result: negative

Genotoxicity in vivo:
- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  Species: Mouse
  Application Route: Ingestion
  Method: OECD Test Guideline 475
  Result: negative
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  Species: Mouse
  Application Route: Ingestion
  Method: OECD Test Guideline 474
  Result: negative
- Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
  Species: Rat
  Application Route: Ingestion
  Result: negative

Hydrocarbons, C10, aromatics, <1% naphthalene:

Genotoxicity in vitro:
- Test Type: In vitro sister chromatid exchange assay in mammalian cells
  Result: negative
  Remarks: Based on data from similar materials

Genotoxicity in vivo:
- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  Species: Rat
  Application Route: inhalation (vapour)
  Result: negative
  Remarks: Based on data from similar materials

2,6-Di-tert-butyl-p-cresol:

Genotoxicity in vitro:
- Test Type: Bacterial reverse mutation assay (AMES)
### SAFETY DATA SHEET

**Ethion / Chlorpyrifos / Alpha-Cypermethrin 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>3.5</td>
<td>2020/03/23</td>
<td>935013-00008</td>
<td>2019/09/13</td>
<td>2016/10/12</td>
</tr>
</tbody>
</table>

Result: negative

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

Test Type: Chromosome aberration test in vitro
Result: negative

**Genotoxicity in vivo**

<table>
<thead>
<tr>
<th>Test Type:</th>
<th>Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)</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>positive</td>
</tr>
</tbody>
</table>

**Carcinogenicity**

May cause cancer.

**Components:**

**Solvent naphtha (petroleum), light aromatic:**

| Species: | Mouse |
| Application Route: | Skin contact |
| Exposure time: | 2 Years |
| Result: | positive |

**Carcinogenicity - Assessment**

Sufficient evidence of carcinogenicity in animal experiments

**Ethion:**

| Species: | Rat |
| Application Route: | Ingestion |
| Exposure time: | 18 Months |
| Result: | negative |

Species: Mouse
Application Route: Ingestion
Exposure time: 24 Months
Result: negative

**Chlorpyrifos:**

| Species: | Rat |
| Application Route: | Ingestion |
| Exposure time: | 2 Years |
| Result: | negative |

Species: Dog
Application Route: Ingestion
Exposure time: 2 Years
Result: negative
Reproductive toxicity
May damage fertility. May damage the unborn child.

Components:

Solvent naphtha (petroleum), light aromatic:
Effects on fertility: Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative

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

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

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

Chlorpyrifos:
Effects on fertility: Test Type: Fertility
Species: Mouse
Application Route: Ingestion
Result: positive

Effects on foetal development: Test Type: Embryo-foetal development
Species: Mouse
Application Route: Intraperitoneal injection
Result: positive
Reproductive toxicity - Assessment: Clear evidence of adverse effects on sexual function and fertility, based on animal experiments. Clear evidence of adverse effects on development, based on animal experiments.

2-Methyl-1-propanol:
Effects on fertility:
- Test Type: Two-generation reproduction toxicity study
- Species: Rat
- Application Route: inhalation (vapour)
- Method: OPPTS 870.3800
- Result: negative

Effects on foetal development:
- Test Type: Embryo-foetal development
- Species: Rat
- Application Route: inhalation (vapour)
- Method: OECD Test Guideline 414
- Result: negative

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Effects on fertility:
- Test Type: Three-generation reproduction toxicity study
- Species: Rat
- Application Route: Ingestion
- Result: negative

Effects on foetal development:
- Test Type: Embryo-foetal development
- Species: Rat
- Application Route: Ingestion
- Method: OECD Test Guideline 414
- Result: negative

Hydrocarbons, C10, aromatics, <1% naphthalene:
Effects on fertility:
- Test Type: Three-generation reproduction toxicity study
- Species: Rat
- Application Route: inhalation (vapour)
- Result: negative
  Remarks: Based on data from similar materials

Effects on foetal development:
- Test Type: Embryo-foetal development
- Species: Rat
- Application Route: Ingestion
- Result: negative
  Remarks: Based on data from similar materials

2,6-Di-tert-butyl-p-cresol:
Effects on fertility:
- Test Type: Two-generation reproduction toxicity study
- Species: Rat
- Application Route: Ingestion
- Result: negative

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

STOT - single exposure
May cause drowsiness or dizziness.
Causes damage to organs (Central nervous system).

Components:

Solvent naphtha (petroleum), light aromatic:
Assessment : May cause drowsiness or dizziness.

Ethion:
Assessment : Causes damage to organs.

Chlorpyrifos:
Target Organs : Central nervous system
Assessment : Causes damage to organs.

2-Methyl-1-propanol:
Assessment : May cause respiratory irritation.
May cause drowsiness or dizziness.

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-
dimethylcyclopropanecarboxylate:
Assessment : May cause respiratory irritation.
Remarks : Based on harmonised classification in EU regulation 1272/2008, Annex VI

Hydrocarbons, C10, aromatics, <1% naphthalene:
Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

STOT - repeated exposure
Causes damage to organs (Central nervous system) through prolonged or repeated exposure.

Components:

Ethion:
Target Organs : Central nervous system
Assessment : Causes damage to organs through prolonged or repeated exposure.

Chlorpyrifos:
Target Organs : Central nervous system
Assessment : Causes damage to organs through prolonged or repeated exposure.
(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Exposure routes : Ingestion
Target Organs : Central nervous system
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

2,6-Di-tert-butyl-p-cresol:
Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Repeated dose toxicity

Components:
Solvent naphtha (petroleum), light aromatic:
Species : Rat
LOAEL : 500 mg/kg
Application Route : Ingestion
Exposure time : 28 Days

Ethion:
Species : Dog
NOAEL : 0.05 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Chlorpyrifos:
Species : Rat
LOAEL : 1 mg/kg
Application Route : Ingestion
Exposure time : 13 Weeks

2-Methyl-1-propanol:
Species : Rat
NOAEL : > 1,450 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OECD Test Guideline 408

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Species : Dog
NOAEL : 3.5 mg/kg
LOAEL : 13.3 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
**Hydrocarbons, C10, aromatics, <1% naphthalene:**

<table>
<thead>
<tr>
<th>Species</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAEL</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Exposure time</td>
<td>13 Weeks</td>
</tr>
<tr>
<td>Remarks</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

**2,6-Di-tert-butyl-p-cresol:**

<table>
<thead>
<tr>
<th>Species</th>
<th>Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAEL</td>
<td>25 mg/kg</td>
</tr>
<tr>
<td>Application Route</td>
<td>Ingestion</td>
</tr>
<tr>
<td>Exposure time</td>
<td>22 Months</td>
</tr>
</tbody>
</table>

**Aspiration toxicity**
May be fatal if swallowed and enters airways.

**Product:**
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

**Components:**

**Solvent naphtha (petroleum), light aromatic:**
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

**2-Methyl-1-propanol:**
The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

**Hydrocarbons, C10, aromatics, <1% naphthalene:**
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

**Experience with human exposure**

**Components:**

**Ethion:**

| Ingestion | Symptoms: Blurred vision, Dizziness, Headache |

**Chlorpyrifos:**

| Inhalation | Symptoms: Headache, Nausea, Vomiting |
| Ingestion  | Symptoms: Cyanosis, Diarrhoea |
12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Solvent naphtha (petroleum), light aromatic:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 8.2 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction

Toxicity to daphnia and other aquatic invertebrates: EL50 (Daphnia magna (Water flea)): 4.5 mg/l Exposure time: 48 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: EL50 (Pseudokirchneriella subcapitata (microalgae)): 3.1 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (microalgae)): 0.5 mg/l Exposure time: 96 h Test substance: Water Accommodated Fraction Method: OECD Test Guideline 201

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

NOELR (Daphnia magna (Water flea)): 2.6 mg/l Exposure time: 21 d Test substance: Water Accommodated Fraction Method: OECD Test Guideline 211

Ethion:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.18 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50: 0.056 - 7.7 µg/l Exposure time: 48 h

M-Factor (Acute aquatic toxicity): 10,000

M-Factor (Chronic aquatic toxicity): 10,000

Chlorpyrifos:

Toxicity to fish: LC50 (Menidia menidia (Atlantic silverside)): 0.53 µg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: LC50 (Daphnia sp. (water flea)): 0.035 µg/l Exposure time: 48 h

Toxicity to algae/aquatic plants: EC50 (Skeletonema costatum (marine diatom)): 298 µg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity): 10,000
Toxicity to fish (Chronic toxicity):
NOEC (Pimephales promelas (fathead minnow)): 0.003 mg/l
Exposure time: 7 d

M-Factor (Chronic aquatic toxicity): 10,000

2-Methyl-1-propanol:
Toxicity to fish:
LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia pulex (Water flea)): 1,100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants:
ErC50 (Pseudokirchneriella subcapitata (green algae)): 1,799 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 117 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
NOEC (Daphnia magna (Water flea)): 20 mg/l
Exposure time: 21 d

(S)-o-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Toxicity to fish:
LC50 (Cyprinus carpio (Carp)): 0.00084 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 0.0003 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants:
ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC10 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity): 1,000
Toxicity to fish (Chronic toxicity):
NOEC (Pimephales promelas (fathead minnow)): 0.03 µg/l
Exposure time: 34 d
SAFETY DATA SHEET

Ethion / Chlorpyrifos / Alpha-Cypermethrin
Formulation

Version: 3.5  Revision Date: 2020/03/23  SDS Number: 935013-00008
Date of last issue: 2019/09/13  Date of first issue: 2016/10/12

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
M-Factor (Chronic aquatic toxicity): 1,000

Hydrocarbons, C10, aromatics, <1% naphthalene:
Toxicity to fish:
- LL50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l
  Exposure time: 96 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 203
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates:
- EL50 (Daphnia magna (Water flea)): 3 - 10 mg/l
  Exposure time: 48 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 202
  Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants:
- EL50 (Pseudokirchneriella subcapitata (green algae)): > 1 - 3 mg/l
  Exposure time: 72 h
  Test substance: Water Accommodated Fraction
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials

2,6-Di-tert-butyl-p-cresol:
Toxicity to fish:
- LC50 (Danio rerio (zebra fish)): > 0.57 mg/l
  Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): 0.48 mg/l
  Exposure time: 48 h
  Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants:
- ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.24 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201

  NOEC (Pseudokirchneriella subcapitata (green algae)): 0.24 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity):
Toxicity to fish (Chronic toxicity):

Toxicity to daphnia and other aquatic invertebrates:
- NOEC (Daphnia magna (Water flea)): 0.316 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 21 d
M-Factor (Chronic aquatic toxicity): 1
Toxicity to microorganisms: EC50: > 10,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Persistence and degradability

Components:

Solvent naphtha (petroleum), light aromatic:
Biodegradability: Result: Inherently biodegradable. Biodegradation: 94 % Exposure time: 25 d

Ethion:
Biodegradability: Result: not rapidly degradable

Chlorpyrifos:
Biodegradability: Result: not rapidly degradable

2-Methyl-1-propanol:

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Biodegradability: Result: Not readily biodegradable. Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301B

Hydrocarbons, C10, aromatics, <1% naphthalene:
Biodegradability: Result: Not readily biodegradable. Biodegradation: 49.56 % Exposure time: 28 d Method: OECD Test Guideline 301F

2,6-Di-tert-butyl-p-cresol:
Biodegradability: Result: Not readily biodegradable. Biodegradation: 4.5 % Exposure time: 28 d Method: OECD Test Guideline 301C
Bioaccumulative potential

**Components:**

**Ethion:**
Partition coefficient: n-octanol/water : log Pow: 5.07

**Chlorpyrifos:**
Bioaccumulation : Species: Pimephales promelas (fathead minnow)
Bioconcentration factor (BCF): 23,000

**2-Methyl-1-propanol:**
Partition coefficient: n-octanol/water : log Pow: 1

(S)-α-Cyano-3-phenoxybenzyl (1R, 3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate:
Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 910

**2,6-Di-tert-butyl-p-cresol:**
Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 330 - 1,800

**Mobility in soil**
No data available

**Other adverse effects**
No data available

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. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.
14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number : UN 1992
Proper shipping name : FLAMMABLE LIQUID, TOXIC, N.O.S.
(Solvent naphtha (petroleum), light aromatic, Ethion)
Class : 3
Subsidiary risk : 6.1
Packing group : III
Labels : 3 (6.1)

IATA-DGR
UN/ID No. : UN 1992
Proper shipping name : Flammable liquid, toxic, n.o.s.
(Solvent naphtha (petroleum), light aromatic, Ethion)
Class : 3
Subsidiary risk : 6.1
Packing group : III
Labels : Flammable Liquids, Toxic
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code
UN number : UN 1992
Proper shipping name : FLAMMABLE LIQUID, TOXIC, N.O.S.
(Solvent naphtha (petroleum), light aromatic, Ethion, Chlopyrifos)
Class : 3
Subsidiary risk : 6.1
Packing group : III
Labels : 3 (6.1)
EmS Code : F-E, S-D
Marine pollutant : yes

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

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.

15. REGULATORY INFORMATION

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

Ethion / Chlorpyrifos / Alpha-Cypermethrin
Formulation

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Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.

Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health
Hazardous substances that must be registered: Not applicable

Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances
Hazardous substances approved for use: Not applicable
Prohibited substances: Not applicable
Restricted substances: Not applicable

Regulation of the Minister of Trade No. 44 of 2009 on Procurement, Distribution and Supervision of Hazardous Materials
Type of Hazardous Materials Restricted to Import, Distribution and Supervision: Not applicable

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

16. OTHER INFORMATION

Further information
Date format: yyyy/mm/dd

Full text of other abbreviations
ACGIH: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI: ACGIH - Biological Exposure Indices (BEI)
ID OEL: Indonesia. Occupational Exposure Limits
ACGIH / TWA: 8-hour, time-weighted average
ID OEL / NAB: Long term exposure limit

AICS - Australian Inventory of Chemical Substances; 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
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.

ID / EN