SAFETY DATA SHEET

Dichlofenthion Formulation

Version 2.3  Revision Date: 04/24/2019  SDS Number: 1552595-00005  Date of last issue: 18.10.2018  Date of first issue: 14.04.2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dichlofenthion Formulation

Manufacturer or supplier’s details
Company : MSD
Address : 50 Tuas West Drive
          Singapore - Singapore 638408
Telephone : 908-740-4000
Emergency telephone number : 65 6697 2111 (24/7/365)
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 4
Skin corrosion/irritation : Category 1
Serious eye damage/eye irritation : Category 1
Skin sensitisation : Category 1
Germ cell mutagenicity : Category 2
Carcinogenicity (Oral) : Category 1A
Reproductive toxicity : Category 2
Specific target organ toxicity - single exposure : Category 1 (Nervous system)
Specific target organ toxicity - single exposure : Category 3
Specific target organ toxicity - repeated exposure : Category 2 (Nervous system, Respiratory Tract)
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.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H350 May cause cancer if swallowed.
H361d Suspected of damaging the unborn child.
H370 Causes damage to organs (Nervous system).
H373 May cause damage to organs (Nervous system, Respiratory Tract) 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.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
P303 + P361 + P353 + P310 IF ON SKIN (or hair): Take off
immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P333 + P313 IF skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

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

Other hazards which do not result in classification
Vapours may form explosive mixture with air.

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>Tar, wood</td>
<td>91722-33-3</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Rosin</td>
<td>8050-09-7</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Tar, coal</td>
<td>8007-45-2</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>&gt;= 1 - &lt; 10</td>
</tr>
<tr>
<td>Dichlofenthion (ISO)</td>
<td>97-17-6</td>
<td>&gt;= 3 - &lt; 10</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>&gt;= 2 - &lt; 3</td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>&gt;= 1 - &lt; 2.5</td>
</tr>
<tr>
<td>m-Cresol</td>
<td>108-39-4</td>
<td>&gt;= 1 - &lt; 3</td>
</tr>
<tr>
<td>p-Cresol</td>
<td>106-44-5</td>
<td>&gt;= 1 - &lt; 3</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

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 immediately.

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 immediately.
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
Harmful if swallowed.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.
Suspected of causing genetic defects.
May cause cancer if swallowed.
Suspected of damaging the unborn child.
Causes damage to organs.
May cause damage to organs through prolonged or repeated
exposure.
Causes severe burns.
Causes digestive tract burns.

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.

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 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
Metal oxides
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/PERSONAL PROTECTION section.

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

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 as
Non-sparking tools should be used. Keep container tightly closed. Already sensitised individuals should consult their physician regarding working with respiratory irritants or sensitisers. 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>Ethylbenzene</td>
<td>100-41-4</td>
<td>PEL (long term)</td>
<td>100 ppm, 434 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL (short term)</td>
<td>125 ppm, 543 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>PEL (long term)</td>
<td>100 ppm, 434 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEL (short term)</td>
<td>150 ppm, 651 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Dichlofenthion (ISO)</td>
<td>97-17-6</td>
<td>TWA</td>
<td>20 µg/m³ (OEB 3)</td>
<td>Internal</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>PEL (short term)</td>
<td>2 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>PEL (long term)</td>
<td>5 ppm, 19 mg/m³</td>
<td>SG OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 ppm</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Further information: Skin

<table>
<thead>
<tr>
<th>Wipe limit</th>
<th>200 µg/100 cm²</th>
<th>Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Phenol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 mg/m³</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>
### 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>Phenol</td>
<td>108-95-2</td>
<td>Phenol</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>250 mg/g Creatinine</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>methylhippuric acid</td>
<td>Urine</td>
<td>1.5 g/g creatinine</td>
<td></td>
<td>SG BTLV</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>Sum of mandelic acid and phenyl glyoxylic acid</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</td>
<td>0.15 g/g creatinine</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

### Engineering measures

- Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless 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.
- Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).
- Minimize open handling.

### Personal protective equipment

**Respiratory protection**

- Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

**Filter type**

- Combined particulates and organic vapour type

**Hand protection**

- Chemical-resistant gloves
Remarks: Consider double gloving. Take note that the product is flammable, which may impact the selection of hand protection.

Eye 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.

Skin and body protection: Work uniform or laboratory coat. Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Use appropriate degowning techniques to remove potentially contaminated clothing.

Hygiene measures: Ensure that eye flushing systems and safety showers are located 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: viscous liquid
Colour: dark, brown
Odour: strong
Odour Threshold: No data available
pH: Not applicable

Melting point/freezing point: No data available
Initial boiling point and boiling range: No data available
Flash point: 30 °C

Evaporation rate: No data available
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
Vapour pressure: No data available
Relative vapour density : No data available
Relative density : No data available
Density : 1.009 - 1.051 g/cm³ (20 °C)
Solubility(ies)
  Water solubility : No data available
Partition coefficient: n-octanol/water : Not applicable
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.
Particle size : Not applicable

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
Harmful if swallowed.

Product:
Acute oral toxicity : Acute toxicity estimate: 1,713 mg/kg
  Method: Calculation method
Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
  Exposure time: 4 h
  Test atmosphere: vapour
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Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

**Components:**

**Tar, wood:**
Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

**Rosin:**
Acute oral toxicity : LD50 (Rat): 2,800 mg/kg

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

**Tar, coal:**
Acute oral toxicity : LD50 (Rat): 1,700 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Ethylbenzene:**
Acute oral toxicity : LD50 (Rat): 3,500 mg/kg

Acute inhalation toxicity : LC50 (Rat): 17.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

**Xylene:**
Acute oral toxicity : LD50 (Rat): 3,523 mg/kg

Acute inhalation toxicity : LC50 (Rat): 27.571 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 4,200 mg/kg

**Dichlofenthion (ISO):**
Acute oral toxicity : LD50 (Rat): 172 mg/kg
LD50 (Rat): 270 mg/kg

Acute inhalation toxicity : LC50 (Rat): 1.75 mg/l
Acute dermal toxicity : LD50 (Rat): 355 mg/kg
LD50 (Rabbit): 6,000 mg/kg

**Sodium hydroxide:**
Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

**Phenol:**
Acute oral toxicity : LD50 (Rat): 650 mg/kg
Method: OECD Test Guideline 401
Acute toxicity estimate (Humans): 140 - 290 mg/kg
Method: Expert judgement

Acute inhalation toxicity : LC0 (Rat): 0.9 mg/l
Exposure time: 8 h
Test atmosphere: dust/mist
Assessment: Corrosive to the respiratory tract.
Acute toxicity estimate (Humans): > 0.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement

Acute dermal toxicity : LD50 (Rabbit): 660 mg/kg
Method: OECD Test Guideline 402
Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgement

**m-Cresol:**
Acute oral toxicity : LD50 (Rat): 121 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 301 mg/kg
Remarks: Based on data from similar materials

**p-Cresol:**
Acute oral toxicity : LD50 (Rat): 172 - 250 mg/kg

Acute inhalation toxicity : Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 213 - 426 mg/kg

**Skin corrosion/irritation**
Causes severe burns.
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**Dichlofenthion 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>2.3</td>
<td>04/24/2019</td>
<td>1552595-00005</td>
<td>18.10.2018</td>
<td>14.04.2017</td>
</tr>
</tbody>
</table>

**Components:**

**Tar, wood:**
- Method: OECD Test Guideline 439
- Result: Skin irritation

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

**Tar, coal:**
- Species: Rabbit
- Result: Mild skin irritation

**Xylene:**
- Species: Rabbit
- Result: Skin irritation

**Dichlofenthion (ISO):**
- Result: Mild skin irritation
- Remarks: Based on data from similar materials

**Sodium hydroxide:**
- Result: Corrosive after 3 minutes or less of exposure

**Phenol:**
- Species: Rabbit
- Result: Corrosive after 3 minutes to 1 hour of exposure

**m-Cresol:**
- Species: Rabbit
- Result: Corrosive after 3 minutes to 1 hour of exposure

**p-Cresol:**
- Species: Rabbit
- Result: Corrosive after 3 minutes to 1 hour of exposure

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

**Components:**

**Tar, wood:**
- Result: Irritation to eyes, reversing within 7 days

**Rosin:**
- Species: Rabbit
<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tar, coal</td>
<td>Human</td>
<td>Irreversible effects on the eye</td>
<td>Based on skin corrosivity.</td>
</tr>
<tr>
<td>Xylene</td>
<td>Rabbit</td>
<td>Irritation to eyes, reversing within 21 days</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>Irreversible effects on the eye</td>
<td></td>
</tr>
<tr>
<td>Phenol</td>
<td>Rabbit</td>
<td>Irreversible effects on the eye</td>
<td></td>
</tr>
<tr>
<td>m-Cresol</td>
<td>Rabbit</td>
<td>Irreversible effects on the eye</td>
<td></td>
</tr>
<tr>
<td>p-Cresol</td>
<td>Rabbit</td>
<td>Irreversible effects on the eye</td>
<td></td>
</tr>
</tbody>
</table>

**Respiratory or skin sensitisation**

**Skin sensitisation**
May cause an allergic skin reaction.

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

**Components:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Test Type</th>
<th>Exposure routes</th>
<th>Species</th>
<th>Method</th>
<th>Result</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tar, wood</td>
<td>Local lymph node assay (LLNA)</td>
<td>Skin contact</td>
<td>Mouse</td>
<td>OECD Test Guideline 429</td>
<td>positive</td>
<td>Probability or evidence of low to moderate skin sensitisation rate in humans</td>
</tr>
</tbody>
</table>

**Rosin:**
Assessment: Probability or evidence of skin sensitisation in humans
## Remarks
Based on harmonised classification in EU regulation 1272/2008, Annex VI

### Tar, coal:
- **Test Type**: Local lymph node assay (LLNA)
- **Exposure routes**: Skin contact
- **Species**: Mouse
- **Method**: OECD Test Guideline 429
- **Result**: positive
- **Remarks**: Based on data from similar materials

### Xylene:
- **Test Type**: Local lymph node assay (LLNA)
- **Exposure routes**: Skin contact
- **Species**: Mouse
- **Result**: negative

### Dichlofenthion (ISO):
- **Exposure routes**: Dermal
- **Assessment**: Does not cause skin sensitisation.
- **Result**: Weak sensitizer
- **Remarks**: Based on data from similar materials

### Sodium hydroxide:
- **Test Type**: Human repeat insult patch test (HRIPT)
- **Exposure routes**: Skin contact
- **Result**: negative

### Phenol:
- **Test Type**: Buehler Test
- **Exposure routes**: Skin contact
- **Species**: Guinea pig
- **Method**: OECD Test Guideline 406
- **Result**: negative

### p-Cresol:
- **Test Type**: Draize Test
- **Exposure routes**: Skin contact
- **Species**: Guinea pig
- **Result**: negative

### Germ cell mutagenicity
Suspected of causing genetic defects.

### Components:
#### Tar, wood:
- **Genotoxicity in vitro**: Test Type: Bacterial reverse mutation assay (AMES)
### Rosin:
- **Genotoxicity in vitro**: Test Type: Bacterial reverse mutation assay (AMES)  
  Method: OECD Test Guideline 471  
  Result: negative  

### Tar, coal:
- **Genotoxicity in vitro**: Test Type: Bacterial reverse mutation assay (AMES)  
  Method: OECD Test Guideline 471  
  Result: positive  
  Remarks: Based on data from similar materials  
- **Germ cell mutagenicity - Assessment**: Positive result(s) from in vivo non-mammalian somatic cell mutagenicity tests, supported by positive results from in vitro mutagenicity assays.  
  Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI  

### Ethylbenzene:
- **Genotoxicity in vitro**: Test Type: Bacterial reverse mutation assay (AMES)  
  Result: negative  
  Test Type: In vitro mammalian cell gene mutation test  
  Method: OECD Test Guideline 476  
  Result: negative  
  Test Type: Chromosome aberration test in vitro  
  Result: negative  
- **Genotoxicity in vivo**: Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo  
  Species: Mouse  
  Application Route: Inhalation  
  Method: OECD Test Guideline 486  
  Result: negative  

### Xylene:
- **Genotoxicity in vitro**: Test Type: Bacterial reverse mutation assay (AMES)  
  Result: negative  
  Test Type: Chromosome aberration test in vitro  
  Result: negative  
  Test Type: In vitro mammalian cell gene mutation test  
  Result: negative  
  Test Type: In vitro sister chromatid exchange assay in mammalian cells  
  Result: negative
### Genotoxicity in vivo

- **Test Type:** Rodent dominant lethal test (germ cell) (in vivo)
  - **Species:** Mouse
  - **Application Route:** Skin contact
  - **Result:** negative

### Phenol:

#### Genotoxicity in vitro

- **Test Type:** Chromosome aberration test in vitro
  - **Method:** OECD Test Guideline 473
  - **Result:** positive

#### Genotoxicity in vivo

- **Test Type:** Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  - **Species:** Mouse
  - **Application Route:** Intraperitoneal injection
  - **Method:** OECD Test Guideline 474
  - **Result:** positive
  - **Remarks:** Annex VI from 1272/2008

### m-Cresol:

#### Genotoxicity in vitro

- **Test Type:** Chromosome aberration test in vitro
  - **Method:** OECD Test Guideline 473
  - **Result:** positive

- **Test Type:** Bacterial reverse mutation assay (AMES)
  - **Method:** OECD Test Guideline 471
  - **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

### p-Cresol:

#### Genotoxicity in vitro

- **Test Type:** Chromosome aberration test in vitro
  - **Method:** OECD Test Guideline 473
  - **Result:** positive

- **Test Type:** In vitro mammalian cell gene mutation test
  - **Method:** OECD Test Guideline 476
  - **Result:** negative

#### Genotoxicity in vivo

- **Test Type:** Rodent dominant lethal test (germ cell) (in vivo)
  - **Species:** Mouse
  - **Application Route:** Ingestion
  - **Method:** OECD Test Guideline 478
  - **Result:** negative
Carcinogenicity
May cause cancer if swallowed.

Components:

Tar, coal:
Species: Mouse
Application Route: Ingestion
Exposure time: 2 Years
Result: positive

Carcinogenicity - Assessment: Positive evidence from human epidemiological studies (oral)
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Ethylbenzene:
Species: Rat
Application Route: inhalation (vapour)
Exposure time: 104 weeks
Result: positive
Remarks: The mechanism or mode of action may not be relevant in humans.

Xylene:
Species: Rat
Application Route: Ingestion
Exposure time: 103 weeks
Result: negative

Phenol:
Species: Mouse
Application Route: Ingestion
Exposure time: 103 weeks
Method: OECD Test Guideline 451
Result: negative

m-Cresol:
Species: Mouse, males
Application Route: Ingestion
Exposure time: 105 weeks
Result: equivocal
Remarks: Based on data from similar materials

Species: Mouse, females
Application Route: Ingestion
Exposure time: 106 - 107 weeks
Result: positive
Remarks: Based on data from similar materials

Carcinogenicity - Assessment: Weight of evidence does not support classification as a carcinogen
Reproductive toxicity
Suspected of damaging the unborn child.

Components:

Rosin:
Effects on fertility: Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative

Effects on foetal development: Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 421
Result: negative

Ethylbenzene:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Method: OECD Test Guideline 416
Result: negative

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

Xylene:
Effects on fertility: Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Result: negative

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

Dichlofenthion (ISO):
## Effects on foetal development

<table>
<thead>
<tr>
<th>Species</th>
<th>Application Route</th>
<th>Developmental Toxicity</th>
<th>LOAEL</th>
<th>Result</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse</td>
<td>Intraperitoneal</td>
<td></td>
<td>80 mg/kg body weight</td>
<td>Reduced foetal weight, Embryotoxic effects.</td>
<td>Based on data from similar materials</td>
</tr>
<tr>
<td>Rat</td>
<td>Intraperitoneal</td>
<td></td>
<td>10 mg/kg body weight</td>
<td>Reduced foetal weight, Embryotoxic effects, No teratogenic effects</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

### Phenol:

<table>
<thead>
<tr>
<th>Effects on fertility</th>
<th>Test Type</th>
<th>Species</th>
<th>Application Route</th>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two-generation reproduction toxicity study</td>
<td>Rat</td>
<td>Ingestion</td>
<td>OECD Test Guideline 416</td>
<td>negative</td>
</tr>
</tbody>
</table>

### m-Cresol:

<table>
<thead>
<tr>
<th>Effects on fertility</th>
<th>Test Type</th>
<th>Species</th>
<th>Application Route</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two-generation reproduction toxicity study</td>
<td>Rat</td>
<td>Ingestion</td>
<td>negative</td>
</tr>
</tbody>
</table>

### p-Cresol:

<table>
<thead>
<tr>
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<th>Test Type</th>
<th>Species</th>
<th>Application Route</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two-generation reproduction toxicity study</td>
<td>Rat</td>
<td>Ingestion</td>
<td>negative</td>
</tr>
</tbody>
</table>

### Reproductive toxicity - Assessment

- Suspected of damaging the unborn child.
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STOT - single exposure
May cause respiratory irritation.
Causes damage to organs (Nervous system).

Components:

Tar, coal:
- Exposure routes: Ingestion
- Target Organs: Nervous system
- Assessment: Shown to produce significant health effects in animals at concentrations of 300 mg/kg bw or less.

Xylene:
- Assessment: May cause respiratory irritation.

STOT - repeated exposure
May cause damage to organs (Nervous system, Respiratory Tract) through prolonged or repeated exposure.

Components:

Tar, coal:
- Target Organs: Respiratory Tract
- Assessment: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.
  - Exposure routes: Inhalation (dust/mist/fume)
  - Target Organs: Respiratory Tract
  - Assessment: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

Ethylbenzene:
- Exposure routes: Inhalation (vapour)
- Target Organs: Auditory system
- Assessment: Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Xylene:
- Exposure routes: Inhalation (vapour)
- Target Organs: Auditory system
- Assessment: Shown to produce significant health effects in animals at concentrations of >0.2 to 1 mg/l/6h/d.

Dichlofenthion (ISO):
- Target Organs: Nervous system
- Assessment: Causes damage to organs through prolonged or repeated exposure.
- Remarks: Based on human experience.

Phenol:
- Target Organs: Central nervous system, Kidney, Liver, Skin
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Ethylbenzene:

Species: Rat
LOAEL: 0.868 mg/l
Application Route: inhalation (vapour)
Exposure time: 13 Weeks

Species: Rat
NOAEL: 75 mg/kg
LOAEL: 250 mg/kg
Application Route: Ingestion
Method: OECD Test Guideline 408

Xylene:

Species: Rat
LOAEL: > 0.2 - 1 mg/l
Application Route: inhalation (vapour)
Exposure time: 13 Weeks
Remarks: Based on data from similar materials

Species: Rat
LOAEL: 150 mg/kg
Application Route: Ingestion
Exposure time: 90 Days

Dichlofenthion (ISO):

Species: Rat
NOAEL: 0.75 mg/kg
Application Route: Oral
Exposure time: 90d

Species: Dog
NOAEL: 0.75 mg/kg
Application Route: Oral
Exposure time: 90d

Phenol:

Species: Rat
LOAEL: 300 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
Method: OECD Test Guideline 408

Species: Rat
NOAEL: >= 0.1 mg/l
Application Route: inhalation (vapour)
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Exposure time: 74 Days
Species: Rabbit
LOAEL: 260 mg/kg
Application Route: Skin contact
Exposure time: 18 Days

m-Cresol:
Species: Rat
NOAEL: 150 mg/kg
Application Route: Ingestion
Exposure time: 13 Weeks
Method: OECD Test Guideline 408

p-Cresol:
Species: Rat
NOAEL: 50 mg/kg
LOAEL: 175 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
Method: OECD Test Guideline 408

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:

Ethylbenzene:
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.

Xylene:
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:

Dichlofenthion (ISO):
Skin contact: Symptoms: irritating, central nervous system effects, sweating
Remarks: Can be absorbed through skin.
May cause sensitisation by skin contact.

Eye contact: Symptoms: constriction of pupils, central nervous system effects

Ingestion: Symptoms: Nausea, Diarrhoea, Vomiting, sweating, Lachrymation, constriction of pupils, Central nervous system depres-
12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Tar, wood:
Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 28 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: EC50 (Desmodesmus subspicatus (green algae)): 17 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Rosin:
Toxicity to fish: LL50 (Danio rerio (zebra fish)): > 1 - < 10 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EL50 (Daphnia magna (Water flea)): 911 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants: NOELR (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 202

Toxicity to microorganisms: EC50: > 10,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Tar, coal:
Toxicity to fish: LL50 (Danio rerio (zebra fish)): > 250 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)): 2.8 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
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Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants:
- EL50 (Desmodesmus subspicatus (green algae)): 36 mg/l Exposure time: 72 h
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials
- NOELR (Desmodesmus subspicatus (green algae)): 5 mg/l Exposure time: 72 h
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials

Ethylbenzene:

Toxicity to fish:
- LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l Exposure time: 96 h
  Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): 1.8 - 2.4 mg/l Exposure time: 48 h

Toxicity to algae/aquatic plants:
- EC50 (Pseudokirchneriella subcapitata (green algae)): 3.6 mg/l Exposure time: 96 h
- NOEC (Pseudokirchneriella subcapitata (green algae)): 3.4 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Ceriodaphnia dubia (water flea)): 0.96 mg/l Exposure time: 7 d

Toxicity to microorganisms:
- EC50 (Nitrosomonas sp.): 96 mg/l Exposure time: 24 h

Xylene:

Toxicity to fish:
- LC50 (Oncorhynchus mykiss (rainbow trout)): 13.5 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 24 h
  Method: OECD Test Guideline 202
  Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants:
- EC50 (Skeletonema costatum (marine diatom)): 10 mg/l Exposure time: 72 h

Toxicity to fish (Chronic toxicity):
- NOEC (Danio rerio (zebra fish)): > 0.1 - < 1 mg/l Exposure time: 35 d
  Method: OECD Test Guideline 210
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- EL10 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: Based on data from similar materials

Toxicity to microorganisms: NOEC: > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Dichlofenthion (ISO):
Toxicity to fish: LC50 (No species specified): 0.64 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

LC50 (Lepomis macrochirus (Bluegill sunfish)): 1.23 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 0.0011 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

M-Factor (Acute aquatic toxicity): 100
M-Factor (Chronic aquatic toxicity): 100

Phenol:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 24.9 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Ceriodaphnia dubia (water flea)): 3.1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants: EC50 (Selenastrum capricornutum (green algae)): 61.1 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity): NOEC: 0.077 mg/l
Exposure time: 60 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 16 d

Toxicity to microorganisms: IC50 (Nitrosomonas sp.): 21 mg/l
Exposure time: 24 h

m-Cresol:
Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 8.6 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia pulex (Water flea)): > 99.5 mg/l
Exposure time: 48 h

Toxicity to fish (Chronic toxicity): NOEC (Pimephales promelas (fathead minnow)): 1.35 mg/l
Exposure time: 32 d
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<table>
<thead>
<tr>
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<tr>
<td>2.3</td>
<td>04/24/2019</td>
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</tr>
</tbody>
</table>

Remarks: Based on data from similar materials

<table>
<thead>
<tr>
<th>Remarks:</th>
<th>NOEC (Daphnia magna (Water flea)): 1 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposure time: 21 d</td>
</tr>
<tr>
<td></td>
<td>Remarks: Based on data from similar materials</td>
</tr>
</tbody>
</table>

**p-Cresol:**

- **Toxicity to fish**
  - LC50 (Oncorhynchus mykiss (rainbow trout)): 7.4 mg/l
  - Exposure time: 96 h

- **Toxicity to daphnia and other aquatic invertebrates**
  - EC50 (Daphnia magna (Water flea)): 7.7 mg/l
  - Exposure time: 48 h
  - Method: DIN 38412

- **Toxicity to algae/aquatic plants**
  - EC50 (Desmodesmus subspicatus (green algae)): 7.8 mg/l
  - Exposure time: 48 h
  - EC10 (Desmodesmus subspicatus (green algae)): 2.3 mg/l
  - Exposure time: 48 h

- **Toxicity to fish (Chronic toxicity)**
  - NOEC (Pimephales promelas (fathead minnow)): 1.35 mg/l
  - Exposure time: 32 d

- **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**
  - NOEC (Daphnia magna (Water flea)): 1 mg/l
  - Exposure time: 21 d

- **Toxicity to microorganisms**
  - IC50 (Nitrosomonas sp.): 260 mg/l
  - Exposure time: 24 h

**Persistence and degradability**

**Components:**

**Tar, wood:**

- **Biodegradability**
  - Result: Not readily biodegradable.
  - Biodegradation: 47 %
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301B

**Rosin:**

- **Biodegradability**
  - Result: Readily biodegradable.
  - Biodegradation: 71 %
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301D

**Ethylbenzene:**

- **Biodegradability**
  - Result: Readily biodegradable.
  - Biodegradation: 70 - 80 %
  - Exposure time: 28 d

**Xylene:**

- **Biodegradability**
  - Result: Readily biodegradable.
### SAFETY DATA SHEET

**Dichlofenthion Formulation**

<table>
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<tr>
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</tr>
</tbody>
</table>

Biodegradation: > 70 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
Remarks: Based on data from similar materials

**Phenol:**  
**Biodegradability:**  
- Result: Readily biodegradable.  
- Biodegradation: 62 %  
- Exposure time: 10 d  
- Method: OECD Test Guideline 301C

**m-Cresol:**  
**Biodegradability:**  
- Result: Readily biodegradable.  
- Biodegradation: 90 %  
- Exposure time: 28 d  
- Method: OECD Test Guideline 301D

**p-Cresol:**  
**Biodegradability:**  
- Result: Readily biodegradable.  
- Biodegradation: 100 %  
- Exposure time: 8 d

**Bioaccumulative potential**

**Components:**

**Tar, wood:**  
Partition coefficient: n-octanol/water: log Pow: 0.2 - 2.02

**Rosin:**  
Bioaccumulation: Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water: log Pow: 3 - 6.2

**Tar, coal:**  
Partition coefficient: n-octanol/water: Remarks: No data available

**Ethylbenzene:**  
Partition coefficient: n-octanol/water: log Pow: 3.6

**Xylene:**  
Partition coefficient: n-octanol/water: log Pow: 3.16  
Remarks: Calculation

**Dichlofenthion (ISO):**  
Partition coefficient: n-octanol/water: log Pow: 5.14
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Phenol:
Bioaccumulation: Species: Fish
Bioconcentration factor (BCF): 17.5
   Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water: log Pow: 1.47

m-Cresol:
Bioaccumulation: Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): 17 - 20

Partition coefficient: n-octanol/water: log Pow: 1.96

p-Cresol:
Bioaccumulation: Species: Leuciscus idus (Golden orfe)
Bioconcentration factor (BCF): 17 - 20
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water: log Pow: 1.94

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 2920
Proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Sodium hydroxide, Ethylbenzene)
Class: 8
Subsidiary risk: 3
Packing group: II
Labels: 8 (3)

IATA-DGR
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UN/ID No. : UN 2920
Proper shipping name : Corrosive liquid, flammable, n.o.s. (Sodium hydroxide, Ethylbenzene)
Class : 8
Subsidiary risk : 3
Packing group : II
Labels : Corrosive, Flammable Liquids
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851

IMDG-Code
UN number : UN 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Sodium hydroxide, Ethylbenzene, Dichlofenthion (ISO))
Class : 8
Subsidiary risk : 3
Packing group : II
Labels : 8 (3)
EmS Code : F-E, S-C
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

Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations : Phosphorus compounds used as pesticides (insecticides, acaricides, etc.)
Phenols

Fire Safety (Petroleum and Flammable Materials) Regulations : Mixed Xylenes Isomers
Xylenes
Ethylbenzene

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

DSL : not determined
SAFETY DATA SHEET

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IECSC: not determined

16. OTHER INFORMATION

Further information

Date format: dd.mm.yyyy

Full text of other abbreviations
ACGIH: USA, ACGIH Threshold Limit Values (TLV)
ACGIH BEI: ACGIH - Biological Exposure Indices (BEI)
SG BTLV: Singapore. Biological Threshold Limit Values
SG OEL: Singapore. Workplace Safety and Health Act - First Schedule Permissible Exposure Limits of Toxic Substances

ACGIH / TWA: 8-hour, time-weighted average
ACGIH / STEL: Short-term exposure limit
ACGIH / C: Ceiling limit
SG OEL / PEL (long term): Permissible Exposure Level (PEL) Long Term
SG OEL / PEL (short term): Permissible Exposure Level (PEL) Short Term

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; CPR - Controlled Products Regulations; 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 - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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.

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