SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Dichlofenthion Formulation

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

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

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Category 3
Acute toxicity (Oral): Category 4
Skin corrosion/irritation: Category 1B
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
SAFETY DATA SHEET

Dichlofenthion Formulation

GHS label elements

Hazard pictograms:

- Fire
- Exclamation mark
- Chemical symbol
- Eye irritation symbol

Signal word: Danger

Hazard statements:

- H26 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.

Supplemental Hazard Statements:

- AUH071 Corrosive to the respiratory tract.

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.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P281 Use personal protective equipment as required.

Response:

- P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician.
- P303 + P361 + P353 + P310 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Immediately call a POISON CENTER or doctor/ physician.
- P304 + P340 + P310 IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
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 or doctor/physician.
P307 + P311 IF exposed: Call a POISON CENTER or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.

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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tar, wood</td>
<td>91722-33-7</td>
<td>&gt;= 10 - &lt; 30</td>
</tr>
<tr>
<td>Rosin</td>
<td>8050-09-7</td>
<td>&gt;= 10 - &lt; 30</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>&lt; 10</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>&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; 3</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>

SECTION 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. Corrosive to the respiratory tract. 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 (see section 8).

Notes to physician: Treat symptomatically and supportively.

SECTION 5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media: 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.

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.
SAFETY DATA SHEET

Dichlofenthion Formulation

Version 2.6  Revision Date: 02.10.2020  SDS Number: 1552612-00008  Date of last issue: 23.03.2020  Date of first issue: 14.04.2017

| Special protective equipment for firefighters | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |
| Hazchem Code | •3W |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protective equipment and emergency procedures | Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. 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 dyeing or other appropriate containment to keep material from spreading. If dyed 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. |

SECTION 7. HANDLING AND STORAGE

| Technical measures | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
| Local/Total ventilation | If sufficient ventilation is unavailable, use with local exhaust ventilation. Use explosion-proof electrical, ventilating and lighting equipment. |
| Advice on safe handling | Do not get on skin or clothing. Do not breathe mist or vapours. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. 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. Already sensitised individuals should consult their physician |
regarding working with respiratory irritants or sensitisers. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the environment.

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


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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosin</td>
<td>8050-09-7</td>
<td>TWA</td>
<td>0.1 mg/m³ (Formaldehyde)</td>
<td>AU OEL</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>STEL</td>
<td>125 ppm</td>
<td>543 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>434 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>20 ppm</td>
<td>135 mg/m³</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>TWA</td>
<td>80 ppm</td>
<td>350 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>655 mg/m³</td>
</tr>
<tr>
<td>Components</td>
<td>CAS-No.</td>
<td>Control parameters</td>
<td>Biological specimen</td>
<td>Sampling time</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>------------------------</td>
<td>---------------------</td>
<td>---------------------------------------------------</td>
</tr>
<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>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>Methylhippuric acids</td>
<td>Urine</td>
<td>End of shift (As soon as possible after exposure ceases)</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>
</tr>
</tbody>
</table>

**Engineering measures**: Use explosion-proof electrical, ventilating and lighting equipment.

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**
- If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
  - **Filter type**: Combined particulates and organic vapour type
  - **Material**: Chemical-resistant gloves

**Hand protection**
- **Material**: 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**
- **Material**: 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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Dark, brown</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>Not applicable</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>30 °C</td>
</tr>
</tbody>
</table>
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

SECTION 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.
SECTION 11. TOXICOLOGICAL INFORMATION

Exposure routes:
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity:
Harmful if swallowed.

Product:
Acute oral toxicity:
Method: Calculation method
Acute toxicity estimate: 1,713 mg/kg

Acute inhalation toxicity:
Method: Calculation method
Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour

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

Components:

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

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

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
**SAFETY DATA SHEET**

**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>2.6</td>
<td>02.10.2020</td>
<td>1552612-00008</td>
<td>23.03.2020</td>
<td>14.04.2017</td>
</tr>
</tbody>
</table>

**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 (Rabbit): 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.

Components:

Tar, wood:
Species : reconstructed human epidermis (RhE)
Method : OECD Test Guideline 439

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
Result: No eye irritation
Method: OECD Test Guideline 405

**Tar, coal:**
Species: Human
Result: Irreversible effects on the eye

**Xylene:**
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

**Sodium hydroxide:**
Result: Irreversible effects on the eye
Remarks: Based on skin corrosivity.

**Phenol:**
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

**m-Cresol:**
Species: Rabbit
Result: Irreversible effects on the eye

**p-Cresol:**
Species: Rabbit
Result: Irreversible effects on the eye
Respiratory or skin sensitisation

Skin sensitisation
May cause an allergic skin reaction.

Respiratory sensitisation
Not classified based on available information.

Components:

Tar, wood:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: positive
Assessment: Probability or evidence of low to moderate skin sensitisation rate in humans

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
Assessment: Probability or evidence of skin sensitisation in humans

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

Chronic toxicity

Germ cell mutagenicity
Suspected of causing genetic defects.

Components:

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

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

Genotoxicity in vitro:
: Test Type: Chromosome aberration test in vitro
  Result: negative

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

Genotoxicity in vitro:
: 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

Germ cell mutagenicity - Assessment:
: Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

m-Cresol:
Genotoxicity in vitro:
: Test Type: Chromosome aberration test in vitro
  Method: OECD Test Guideline 473
  Result: positive

Genotoxicity in vitro:
: 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, female
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

**p-Cresol:**
Species: Mouse
Application Route: Ingestion
Exposure time: 106 - 107 weeks
Result: negative
Remarks: Based on data from similar materials

**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:
Species: Rat
Application Route: Inhalation
Method: OECD Test Guideline 414
Result: negative

Xylene:
Effects on fertility:
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development:
Species: Rat
Application Route: Inhalation (vapour)
Result: negative

Dichlofenthion (ISO):
Effects on foetal development:
Species: Mouse
Application Route: Intraperitoneal
Developmental Toxicity: LOAEL: 80 mg/kg body weight
Result: Reduced foetal weight, Embryotoxic effects.
Remarks: Based on data from similar materials

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

Phenol:
Effects on fertility:
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development:
Species: Mouse
Application Route: Ingestion
Result: negative

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

Effects on foetal development:
- Test Type: Prenatal development toxicity study (teratogenicity)
- Species: Rat
- Application Route: Ingestion
- Result: negative

**p-Cresol:**
- Effects on fertility:
  - Test Type: Two-generation reproduction toxicity study
  - Species: Rat
  - Application Route: Ingestion
  - Result: negative

**STOT - single exposure**
- May cause respiratory irritation.
- Causes damage to organs (Nervous system).
- Corrosive to the respiratory tract.

**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
<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Application Route</th>
<th>NOAEL</th>
<th>LOAEL</th>
<th>Exposure time</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlofenthion (ISO)</td>
<td>Rat</td>
<td>Oral</td>
<td>0.75 mg/kg</td>
<td>300 mg/kg</td>
<td>90 d</td>
<td>OECD Test Guideline 408</td>
</tr>
<tr>
<td>Phenol</td>
<td>Rat</td>
<td>Ingestion</td>
<td>300 mg/kg</td>
<td>260 mg/kg</td>
<td>90 Days</td>
<td>OECD Test Guideline 408</td>
</tr>
<tr>
<td>m-Cresol</td>
<td>Rat</td>
<td>Ingestion</td>
<td>150 mg/kg</td>
<td>175 mg/kg</td>
<td>13 Weeks</td>
<td>OECD Test Guideline 408</td>
</tr>
<tr>
<td>p-Cresol</td>
<td>Rat</td>
<td>Ingestion</td>
<td>50 mg/kg</td>
<td>175 mg/kg</td>
<td>90 Days</td>
<td>OECD Test Guideline 408</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:

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):

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Symptoms: irritating, central nervous system effects, sweating Remarks: Can be absorbed through skin, May cause sensitisation by skin contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Symptoms: constriction of pupils, central nervous system effects</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Symptoms: Nausea, Diarrhoea, Vomiting, sweating, Lachrymation, constriction of pupils, Central nervous system depression, Gastrointestinal disturbance, bronchospasm, central nervous system effects, Oedema</td>
</tr>
</tbody>
</table>

SECTION 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

EC10 (Desmodesmus subspicatus (green algae)): 14 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
### Toxicity to algae/aquatic plants

**Method**: OECD Test Guideline 202

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOELR (Pseudokirchneriella subcapitata (green algae))</td>
<td>&gt; 1,000 mg/l</td>
<td>72 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

**Test Substance**: Water Accommodated Fraction

### Toxicity to microorganisms

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
<td>&gt; 10,000 mg/l</td>
<td>3 h</td>
<td>OECD Test Guideline 209</td>
</tr>
</tbody>
</table>

### Tar, coal:

#### Toxicity to fish

**Method**: OECD Test Guideline 203

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>LC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LL50 (Danio rerio (zebra fish))</td>
<td>&gt; 250 mg/l</td>
<td>96 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EL50 (Daphnia magna (Water flea))</td>
<td>2.8 mg/l</td>
<td>48 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOELR (Desmodesmus subspicatus (green algae))</td>
<td>5 mg/l</td>
<td>72 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

### Ethylbenzene:

#### Toxicity to fish

**Method**: OECD Test Guideline 203

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>LC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 (Oncorhynchus mykiss (rainbow trout))</td>
<td>4.2 mg/l</td>
<td>96 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 (Daphnia magna (Water flea))</td>
<td>1.8 - 2.4 mg/l</td>
<td>48 h</td>
<td>OECD Test Guideline 201</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Pseudokirchneriella subcapitata (green algae))</td>
<td>3.4 mg/l</td>
<td>96 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

**Remarks**: Based on data from similar materials

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Ceriodaphnia dubia (water flea))</td>
<td>0.96 mg/l</td>
<td>7 d</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Ceriodaphnia dubia (water flea))</td>
<td>0.96 mg/l</td>
<td>7 d</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

### Toxicity to daphnia and other aquatic invertebrates

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Pseudokirchneriella subcapitata (green algae))</td>
<td>3.4 mg/l</td>
<td>96 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

### Toxicity to algae/aquatic plants

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOELR (Pseudokirchneriella subcapitata (green algae))</td>
<td>5 mg/l</td>
<td>72 h</td>
<td>Based on data from similar materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Ceriodaphnia dubia (water flea))</td>
<td>0.96 mg/l</td>
<td>7 d</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>Test Substance</strong></th>
<th><strong>EC</strong></th>
<th><strong>Exposure time</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEC (Ceriodaphnia dubia (water flea))</td>
<td>0.96 mg/l</td>
<td>7 d</td>
<td>OECD Test Guideline 202</td>
</tr>
</tbody>
</table>
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

**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
  Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
- NOEC (Daphnia magna (Water flea)): 1 mg/l
  Exposure time: 21 d
  Remarks: Based on data from similar materials

**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.  
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: Onchorhynchus 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  :  Remarks: Calculation

**Dichlofenthion (ISO):**
Partition coefficient: n-octanol/water  :  log Pow: 5.14

**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

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**
Waste from residues  :  Dispose of in accordance with local regulations.
Contaminated packaging  :  Empty containers should be taken to an approved waste handling site for recycling or disposal.
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.

SECTION 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**
- 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.

National Regulations

**ADG**
- 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)
- Hazchem Code: •3W
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.

SECTION 15. REGULATORY INFORMATION

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

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

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

- AICS: not determined
- DSL: not determined
- IECSC: not determined

SECTION 16. OTHER INFORMATION

Further information

- Revision Date: 02.10.2020
- Date format: dd.mm.yyyy

Full text of other abbreviations

- ACGIH: USA. ACGIH Threshold Limit Values (TLV)
- ACGIH BEI: ACGIH - Biological Exposure Indices (BEI)
- ACGIH / TWA: 8-hour, time-weighted average
- ACGIH / STEL: Short-term exposure limit
- ACGIH / C: Ceiling limit
- AU OEL / TWA: Exposure standard - time weighted average
- AU OEL / STEL: Exposure standard - short term exposure limit
- AU OEL / Peak limit: Exposure standard - peak

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for
SAFETY DATA SHEET

Dichlofenthion Formulation

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; TCSI - Taiwan Chemical Substance Inventory; 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.

AU / EN