SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

Flammable liquids : Category 2
Skin irritation : Category 2
Eye irritation : Category 2A
Germ cell mutagenicity : Category 1B
Carcinogenicity : Category 2
Reproductive toxicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure : Category 2 (Liver, Kidney, Central nervous system, Auditory system)
Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Auditory system, Eyes)
Aspiration hazard: Category 1

**GHS Label element**

Hazard pictograms:

- Flammable
- Skin irritation
- Chocolate crossing

Signal word: Danger

**Hazard statements**:

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H340 May cause genetic defects.
- H351 Suspected of causing cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H373 May cause damage to organs (Liver, Kidney, Central nervous system, Auditory system) through prolonged or repeated exposure.
- H373 May cause damage to organs (Auditory system, Eyes) through prolonged or repeated exposure if inhaled.

**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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- 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 dust/ fume/ gas/ mist/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ eye protection/ face protection.
- P281 Use personal protective equipment as required.

**Response**:

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
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.

**Potential Health Effects**

**Carcinogenicity:**

**IARC**
Group 2B: Possibly carcinogenic to humans

- 64742-49-0 Naphtha (pet), hydrotreated
- 64742-89-8 Solvent naphtha (pet), lt aliph.
- 100-41-4 Ethylbenzene

**ACGIH**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**OSHA**
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

| Appearance | liquid |
| Colour     | clear  |
| Hazard Summary | No information available. |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>30 - 50</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Naphtha (pet), hydrotreated It</td>
<td>0 - 20</td>
</tr>
<tr>
<td>64742-89-8</td>
<td>Solvent naphtha (pet), Lt aliph.</td>
<td>0 - 20</td>
</tr>
<tr>
<td>68410-97-9</td>
<td>Distillates, pet, lt dist hydrotreat process, low-boil</td>
<td>0 - 20</td>
</tr>
<tr>
<td>108-65-6</td>
<td>Glycol ether PM acetate</td>
<td>10 - 20</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>10 - 20</td>
</tr>
<tr>
<td>110-19-0</td>
<td>Isobutyl acetate</td>
<td>10 - 20</td>
</tr>
<tr>
<td>123-86-4</td>
<td>n-Butyl acetate</td>
<td>5 - 10</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Mixed xylenes</td>
<td>5 - 10</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1 - 5</td>
</tr>
<tr>
<td>142-82-5</td>
<td>Heptane</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

Synonyms : CP 81-03,

Special Notes: Functionally equivalent petroleum streams may be found in this preparation at varying concentrations. Mixed Xylenes contains the isomers o-, m-, p- Xylene, and Ethylbenzene. Trace amounts of Toluene and Benzene may also be present as impurities.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours
later.
Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

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

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

Specific extinguishing methods : Use a water spray to cool fully closed containers.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification:
Flammable Liquid Class IB

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage:
- No smoking.
- Keep container tightly closed in a dry and well-ventilated place.
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Observe label precautions.
- Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>TWA</td>
<td>500 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>750 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>250 ppm 590 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>750 ppm 1,800 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm 2,400 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>Naphtha (pet), hydrotreated lt</td>
<td>TWA</td>
<td>500 ppm 2,000 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 1,600 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>64742-89-8</td>
<td>Solvent naphtha (pet), Lt aliph.</td>
<td>TWA</td>
<td>500 ppm 2,000 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>400 ppm 1,600 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>108-65-6</td>
<td>Glycol ether PM acetate</td>
<td>TWA</td>
<td>50 ppm</td>
<td>US WEEL</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>100 ppm 375 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>150 ppm 560 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>200 ppm</td>
<td>OSHA Z-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CEIL</td>
<td>300 ppm</td>
<td>OSHA Z-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peak</td>
<td>500 ppm</td>
<td>OSHA Z-2</td>
</tr>
<tr>
<td>CAS Number</td>
<td>Chemical</td>
<td>TWA</td>
<td>STEL</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
<td>---------</td>
<td>----------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ppm</td>
<td>375 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>560 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>110-19-0</td>
<td>Isobutyl acetate</td>
<td>TWA</td>
<td>150 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>700 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>700 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>700 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>123-86-4</td>
<td>n-Butyl acetate</td>
<td>STEL</td>
<td>200 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>200 ppm</td>
<td>950 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>710 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>710 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
<td>710 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>200 ppm</td>
<td>950 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Mixed xylenes</td>
<td>TWA</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>150 ppm</td>
<td>345 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>125 ppm</td>
<td>345 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>435 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>125 ppm</td>
<td>545 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>435 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
<td>435 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>125 ppm</td>
<td>545 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>142-82-5</td>
<td>Heptane</td>
<td>TWA</td>
<td>85 ppm</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>85 ppm</td>
<td>350 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>440 ppm</td>
<td>1,800 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>500 ppm</td>
<td>2,000 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>400 ppm</td>
<td>1,600 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>500 ppm</td>
<td>2,000 mg/m³</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>
## Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameter</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift  (As soon as possible after exposure ceases)</td>
<td>50 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>Toluene</td>
<td>In blood</td>
<td>Prior to last shift of work-week</td>
<td>0.02 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene</td>
<td>Urine</td>
<td>End of shift  (As soon as possible after exposure ceases)</td>
<td>0.03 mg/l</td>
<td>ACGIH BEI</td>
</tr>
<tr>
<td>o-Cresol</td>
<td></td>
<td>Urine</td>
<td>End of shift  (As soon as possible after exposure ceases)</td>
<td>0.3 mg/g Creatinine</td>
<td>ACGIH BEI</td>
<td></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 at end of work-week</td>
<td>0.7 g/g creatinine</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

### Personal protective equipment

**Respiratory protection**: No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter.

**Hand protection**
Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
Colour: clear
Odour: No data available
Odour Threshold: No data available
pH: No data available
Freezing Point: No data available
Boiling Point (Boiling point/boiling range): 56 - 245 °C (133 - 473 °F)
Flash point: < -18 °C (-0.40 °F)
Evaporation rate: 1 Ethyl Ether
Flammability (solid, gas): No data available
Burning rate: No data available
Upper explosion limit: 12.8 %(V)
Calculated Explosive Limit
Lower explosion limit: 1 %(V)
Calculated Explosive Limit
Vapour pressure: No data available
Relative vapour density: > 1 (Air = 1.0)
Relative density: 0.827 @ 77.00 °F (77.00 °C)
Density: 0.827 g/cm³ @ 25 °C (77 °F)
Bulk density: No data available
Water solubility: No data available
Solubility in other solvents: No data available
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Thermal decomposition: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Product will not undergo hazardous polymerization. Vapours may form explosive mixture with air.

Conditions to avoid: Heat, flames and sparks.
Exposure to air.
Exposure to moisture.
Extremes of temperature and direct sunlight.

Incompatible materials: Acids
alkalis
Amines
Ammonia halogens
Peroxides
Reducing agents
Strong oxidizing agents
Oxygen
aluminum
nitrates
organic absorbents such as sawdust, peat moss,
ground corn cobs, etc.
Bases
metal salts

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

**Product:**
Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 30000 ppm
Exposure time: 4 h
Test atmosphere: gas
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

**Components:**

**67-64-1:**
Acute oral toxicity : LD50 (rat): 5,800 mg/kg

Acute inhalation toxicity : LC50 (rat): 76.0 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 : > 7,426 mg/kg

**64742-49-0:**
Acute oral toxicity : LD50 (rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

**64742-89-8:**
Acute oral toxicity : LD50 (rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
<table>
<thead>
<tr>
<th>Substance</th>
<th>Acute inhalation toxicity</th>
<th>Dermal toxicity</th>
<th>Oral toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>68410-97-9</td>
<td>Remarks: No data available</td>
<td>&gt; 2,000 mg/kg</td>
<td>&gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>108-65-6</td>
<td>Remarks: No data available</td>
<td>&gt; 5,000 mg/kg</td>
<td>&gt; 8,532 mg/kg</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Remarks: Information given is based on data obtained from similar substances.</td>
<td>&gt; 5,580 mg/kg</td>
<td>&gt; 13,413 mg/kg</td>
</tr>
<tr>
<td>110-19-0</td>
<td>Remarks: Information given is based on data obtained from similar substances.</td>
<td>&gt; 17,400 mg/kg</td>
<td>&gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>123-86-4</td>
<td>Remarks: No data available</td>
<td>&gt; 5,000 mg/kg</td>
<td>&gt; 5,000 mg/kg</td>
</tr>
</tbody>
</table>
Method: OECD Test Guideline 423  
GLP: no

**Acute inhalation toxicity**  
LC50 (rat, male and female): > 21 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour

**Acute dermal toxicity**  
LD50 (rabbit, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402  
GLP: yes

**1330-20-7:**  
**Acute oral toxicity**  
LD50 (rat, male): 3,523 mg/kg  
Method: EU Method B.1 (Acute Toxicity, Oral)  
GLP: no

**Acute inhalation toxicity**  
LC50 (rat, male): 6700 ppm  
Exposure time: 4 h  
Assessment: The component/mixture is moderately toxic after short term inhalation.

**Acute dermal toxicity**  
LD50 (rabbit): 1,100 mg/kg  
Assessment: The component/mixture is moderately toxic after single contact with skin.

**100-41-4:**  
**Acute inhalation toxicity**  
LC50 (Mouse, Male): 10 mg/l  
Exposure time: 4 h  
Assessment: The component/mixture is moderately toxic after short term inhalation.

**Acute dermal toxicity**  
LD50 (rabbit): 15,433 mg/kg

**142-82-5:**  
**Acute oral toxicity**  
LD50 (rat, male and female): 5,000 mg/kg  
Method: OECD Test Guideline 401  
Symptoms: Salivation  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

**Acute inhalation toxicity**  
LC50 (rat, male and female): 73.5 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403

**Acute dermal toxicity**  
LD50 (rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Skin corrosion/irritation

**Product:**
Remarks: Irritating to skin.

**Components:**

**67-64-1:**
Species: rabbit
Exposure time: 24 h
Method: In vivo
Result: Mild skin irritation

**64742-49-0:**
Species: rabbit
Result: Irritating to skin.

**64742-89-8:**
Species: rabbit
Exposure time: 4 h
Result: Irritating to skin.

**68410-97-9:**
Species: rabbit
Result: Irritating to skin.

**108-65-6:**
Species: rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

**108-88-3:**
Species: rabbit
Exposure time: 4 h
Result: Irritating to skin.

**110-19-0:**
Species: rabbit
Result: No skin irritation

**123-86-4:**
Species: rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no
1330-20-7:
Species: rabbit
Exposure time: 24 h
Result: Irritating to skin.

100-41-4:
Species: rabbit
Result: Mild skin irritation

142-82-5:
Species: rabbit
Exposure time: 24 h
Method: OECD Test Guideline 404
Result: Irritating to skin.
GLP: yes
Remarks: Based on a similar product formulation.

Serious eye damage/eye irritation

Product:
Remarks: Irritating to eyes.

Components:
67-64-1:
Species: rabbit
Result: Irritating to eyes.
Exposure time: 24 h

64742-49-0:
Species: rabbit
Result: Irritating to eyes.

64742-89-8:
Species: rabbit
Result: Irritating to eyes.

68410-97-9:
Species: rabbit
Result: Irritating to eyes.

108-65-6:
Species: rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

108-88-3:
Species: rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405
110-19-0:
Species: rabbit
Result: No eye irritation

123-86-4:
Species: rabbit
Result: No eye irritation
GLP: yes

1330-20-7:
Species: rabbit
Result: Irritating to eyes.

100-41-4:
Species: rabbit
Result: Mild eye irritation

142-82-5:
Species: rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation

Components:

67-64-1:
Test Type: Maximization test
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

64742-49-0:
Test Type: Buehler Test
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

64742-89-8:
Test Type: Buehler Test
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

108-65-6:
Test Type: Maximization test
Species: guinea pig
Method: OECD Test Guideline 406
Result: Did not cause sensitisation on laboratory animals.
GLP: no

108-88-3:
Test Type: Maximisation Test (GPMT)
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.
GLP: yes

110-19-0:
Test Type: Maximization test
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

123-86-4:
Species: guinea pig
Result: Did not cause sensitisation on laboratory animals.

1330-20-7:
Remarks: No data available

100-41-4:
Remarks: No data available

142-82-5:
Test Type: Maximization test
Species: guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
Remarks: Based on a similar product formulation.

Germ cell mutagenicity

Components:

67-64-1:
Genotoxicity in vitro
Test Type: Mammalian cell gene mutation assay
Test species: Mouse lymphoma cells
Metabolic activation: Without metabolic activation
Method: OECD Test Guideline 476
Result: negative

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Test Type: Chromosome aberration test in vitro
Test species: Chinese hamster ovary (CHO)
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Genotoxicity in vivo:
- Test Type: In vivo micronucleus test
- Test species: mouse
- Application Route: Oral
- Exposure time: 13 wk
- Dose: 5,000, 10,000, 20,000 ppm
- Result: negative

Germ cell mutagenicity:
- Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

64742-49-0:
- Germ cell mutagenicity:
  - Assessment: Mutagenicity classification not possible from current data

64742-89-8:
- Germ cell mutagenicity:
  - Assessment: Mutagenicity classification not possible from current data

68410-97-9:
- Genotoxicity in vitro:
  - Test Type: Mammalian cell gene mutation assay
  - Test species: mouse lymphoma cells
  - Result: positive

Genotoxicity in vivo:
- Test Type: In vivo micronucleus test
- Test species: mouse
- Method: OECD Test Guideline 474
- Result: positive

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

108-65-6:
- Genotoxicity in vitro:
  - Test Type: DNA damage and/or repair
  - Test species: rat hepatocytes
  - Metabolic activation: Without metabolic activation
  - Method: OECD Test Guideline 482
  - Result: negative
  - GLP: yes

Germ cell mutagenicity:
- Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

108-88-3:
- Genotoxicity in vitro:
  - Test Type: Mammalian cell gene mutation assay
  - Test species: Mouse lymphoma cells
  - Metabolic activation: with and without metabolic activation
  - Method: OECD Test Guideline 476
  - Result: negative
| Genotoxicity in vivo | Test Type: Dominant lethal assay  
|                     | Test species: mouse (male)  
|                     | Application Route: inhalation (vapour)  
|                     | Exposure time: 6 h/d, 5 d/wk for 8 wks  
|                     | Dose: 0, 100, 400 ppm  
|                     | Method: OECD Test Guideline 478  
|                     | Result: negative |
| Germ cell mutagenicity-Assessment | Tests on bacterial or mammalian cell cultures did not show mutagenic effects. |

**110-19-0:**

| Genotoxicity in vitro | Test Type: Chromosome aberration test in vitro  
|                       | Test species: Chinese hamster lung fibroblasts  
|                       | Metabolic activation: with and without metabolic activation  
|                       | Result: negative |

| Genotoxicity in vivo | Test Type: In vivo micronucleus test  
|                     | Test species: mouse  
|                     | Application Route: Oral  
|                     | Result: negative |

| Germ cell mutagenicity-Assessment | Tests on bacterial or mammalian cell cultures did not show mutagenic effects. |

**123-86-4:**

| Genotoxicity in vitro | Test Type: Chromosome aberration test in vitro  
|                       | Test species: Chinese hamster lung fibroblasts  
|                       | Metabolic activation: Without metabolic activation  
|                       | Method: OECD Test Guideline 473  
|                       | Result: negative  
|                       | GLP: No data available |

| Genotoxicity in vivo | Test Type: In vivo micronucleus test  
|                     | Test species: mouse (male and female)  
|                     | Application Route: Oral  
|                     | Dose: 500, 1000, 2000 mg/kg bw  
|                     | Method: OECD Test Guideline 474  
|                     | Result: negative  
|                     | GLP: yes  
|                     | Test substance: Information given is based on data obtained from similar substances. |

| Germ cell mutagenicity-Assessment | Tests on bacterial or mammalian cell cultures did not show mutagenic effects. |

**1330-20-7:**

| Genotoxicity in vitro | Test Type: Chromosome aberration test in vitro  
|                       | Test species: Chinese hamster ovary (CHO) |
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (in vitro mammalian cytogenetic test)
Result: negative

Test Type: Sister chromatid exchange assay in mammalian cells
Test species: Chinese hamster ovary (CHO)
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Dominant lethal assay
Test species: mouse
Application Route: Subcutaneous
Exposure time: 8 wk
Dose: 1.0 mL/kg
Method: OECD Test Guideline 478
Result: negative
GLP: no

Genotoxicity in vivo: Test Type: In vivo micronucleus test
Test species: mouse (male)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: DNA damage and/or repair

Germ cell mutagenicity-Assessment: Animal testing did not show any mutagenic effects.
Test species: mouse (male and female)
Application Route: Inhalation
Method: OECD Test Guideline 486
Result: negative
GLP: yes

Germ cell mutagenicity-Assessment: In vivo tests did not show mutagenic effects

142-82-5: Genotoxicity in vitro
Test Type: Chromosome aberration test in vitro
Test species: Rat liver
Metabolic activation: Without metabolic activation
Method: OECD Test Guideline 473
Result: negative

: Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Germ cell mutagenicity-Assessment: Did not show mutagenic effects in animal experiments.

Carcinogenicity

Components:
67-64-1: Species: mouse, (female)
Application Route: Dermal
Exposure time: 365 d (90%) or 424 d (100%)
Dose: 0.1ml 90(71mg) or 100% (79mg)
Frequency of Treatment: 3 times per wk
NOAEL: 79
Result: did not display carcinogenic properties
Carcinogenicity - Assessment: Carcinogenicity classification not possible from current data.

64742-49-0: Carcinogenicity - Assessment: Not classifiable as a human carcinogen.

64742-89-8: Carcinogenicity - Assessment: Not classifiable as a human carcinogen.

68410-97-9:
Species: mouse
NOAEL: 50 mg/kg bw/day

Method: OECD Test Guideline 451
Result: evidence of carcinogenic activity

Carcinogenicity - Assessment: Possible human carcinogen

**108-65-6:**
Species: rat, (male and female)
Application Route: inhalation (vapour)
Exposure time: 2 yr
Dose: 0, 300, 1000, 3000 ppm
Frequency of Treatment: 6 hr/d, 5 d/wk
NOAEL: No observed adverse effect level: 3,000 ppm

Method: OECD Test Guideline 453
Result: did not display carcinogenic properties
GLP: yes

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

**108-88-3:**
Species: rat, (male and female)
Application Route: inhalation (vapour)
Exposure time: 103 wks
Dose: 0, 600, 1200 ppm
Frequency of Treatment: 6.5 h/d, 5 d/wk
NOAEL: No observed adverse effect level: 1,200 ppm

Method: OECD Test Guideline 453
Result: did not display carcinogenic properties
Symptoms: Erosion of nasal epithelium
GLP: yes

Carcinogenicity - Assessment: Not classifiable as a human carcinogen.

**110-19-0:**
Remarks: This information is not available.

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

**123-86-4:**
Remarks: This information is not available.

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.
1330-20-7:
Species: mouse, (male and female)
Application Route: Oral
Exposure time: 103 wk
Dose: 0, 500 or 1000 mg/kg
Frequency of Treatment: 5 days/week
Result: did not display carcinogenic properties
GLP: No data available

Carcinogenicity - Assessment: Animal testing did not show any carcinogenic effects.

100-41-4:
Species: mouse, (male and female)
Application Route: Inhalation
Exposure time: 103 wk
Activity duration: 6 h
Dose: 0, 75, 250, 750 ppm
Frequency of Treatment: 5 days/week
NOAEL: 250 ppm
Method: OECD Test Guideline 453
Result: evidence of carcinogenic activity
Symptoms: increased incidences of alveolar/bronchiolar neoplasms, increase incidence of hepatocellular carcinomas
GLP: yes

Carcinogenicity - Assessment: Suspected human carcinogens

142-82-5:
Remarks: This information is not available.

Carcinogenicity - Assessment: Carcinogenicity classification not possible from current data.

Reproductive toxicity

Components:
67-64-1:
Effects on fertility: Species: rat, male
Application Route: oral
Dose: 0, 5000, 10000 mg/L
Frequency of Treatment: 7 days/week
General Toxicity - Parent: LOAEL: 10,000
Fertility: 10,000
### Effects on foetal development

**Species**: rat  
**Application Route**: Inhalation  
**Dose**: 0, 440, 2200, 11000 ppm  
**Frequency of Treatment**: 7 days/week  
**General Toxicity Maternal**: NOAEC: 2,200 ppm  
**Teratogenicity**: NOAEC: 11,000 ppm  
**Embryo-fetal toxicity**: NOAEC: 2,200 ppm  
**Method**: OECD Test Guideline 414  
**Result**: No teratogenic potential.  
**GLP**: No data available

### Reproductive toxicity - Assessment

No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

#### 64742-49-0:
**Reproductive toxicity - Assessment**: Fertility classification not possible from current data.  
Embryotoxicity classification not possible from current data.

#### 64742-89-8:
**Reproductive toxicity - Assessment**: Fertility classification not possible from current data.  
Embryotoxicity classification not possible from current data.

#### 68410-97-9:
**Reproductive toxicity - Assessment**: Fertility classification not possible from current data.  
Embryotoxicity classification not possible from current data.

#### 108-65-6:
**Effects on fertility**: Species: rat  
**Application Route**: Oral  
**Dose**: 0, 100, 300, 1000 mg/kg  
**General Toxicity - Parent**: NOAEL: 1,000 mg/kg bw  
**General Toxicity F1**: NOAEL: 1,000 mg/kg bw  
**Method**: OECD Test Guideline 422  
**Result**: Animal testing did not show any effects on fertility.  
**GLP**: yes  
**Remarks**: Information given is based on data obtained from similar substances.

### Effects on foetal development

**Species**: rat  
**Application Route**: Inhalation  
**Dose**: 0, 500, 2000, 4000 ppm  
**Duration of Single Treatment**: 9 d  
**Frequency of Treatment**: 6 hr/day  
**General Toxicity Maternal**: NOAEL: 500 ppm  
**Teratogenicity**: NOAEL: > 4,000 ppm
Reproductive toxicity - Assessment: No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

**108-88-3:**
Effects on fertility

- Test Type: Two-generation study
  - Species: rat, male and female
  - Application Route: Inhalation
  - Dose: 0, 100, 500, 2000 ppm
  - Frequency of Treatment: 7 days/week
  - General Toxicity - Parent: NOAEC: 500 ppm
  - General Toxicity F1: NOAEC: 500 ppm
  - Fertility: NOAEC: 2,000 ppm
  - Symptoms: Reduced maternal body weight gain. Reduced offspring weight gain.
  - Method: OECD Test Guideline 416
  - Result: Animal testing did not show any effects on fertility.

GLP: yes

Reproductive toxicity - Assessment

- Test Type: Fertility
  - Species: rat, male and female
  - Application Route: Inhalation (vapour)
  - Dose: 0, 600, 1200 ppm
  - Frequency of Treatment: 7 days/week
  - General Toxicity - Parent: NOAEC: 600 ppm
  - Symptoms: Decreased sperm count

Result: Animal testing did not show any effects on fertility.

GLP: yes

**110-19-0:**
Effects on fertility

- Test Type: Two-generation study
  - Species: rat
  - Application Route: Inhalation

Reproductive toxicity - Assessment: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
Duration of Single Treatment: 6 h  
Frequency of Treatment: 7 days/week  
General Toxicity - Parent: NOAEL: 2,500 ppm  
Method: OECD Test Guideline 416

Reproductive toxicity - Assessment: No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

123-86-4:  
Effects on fertility  
Species: rat, male and female  
Application Route: Inhalation  
Dose: 0, 750, 1500, 2000 ppm  
Duration of Single Treatment: 6 h  
Frequency of Treatment: 7 days/week  
General Toxicity - Parent: NOAEC: 750 ppm  
General Toxicity F1: NOAEC: 750 ppm  
Fertility: NOAEC: 2,000 ppm  
Early Embryonic Development: NOAEC: 750 ppm  
Symptoms: Effect on reproduction capacity.  
Method: OECD Test Guideline 416  
GLP: yes

Effects on foetal development  
Species: rat, male and female  
Application Route: Vapour  
Dose: 500, 1500, 3000 ppm  
Duration of Single Treatment: 6 h  
Frequency of Treatment: 5 days/week  
GLP: yes

Reproductive toxicity - Assessment: Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.

1330-20-7:  
Effects on fertility  
Species: rat, male and female  
Application Route: Inhalation  
Dose: 0, 25, 100 and 500 ppm  
Duration of Single Treatment: 6 h  
Frequency of Treatment: 7 days/week  
General Toxicity - Parent: NOAEC: > 500 ppm  
General Toxicity F1: NOAEC: > 500 ppm  
Early Embryonic Development: NOAEC: > 500 ppm  
Result: No reproductive effects.

Effects on foetal development  
Species: rat  
Application Route: Inhalation  
Dose: 0, 100, 500, 1000 or 2000 ppm  
Duration of Single Treatment: 14 d
Reproductive toxicity - Assessment: Animal testing did not show any effects on fertility. Damage to fetus not classifiable

### 100-41-4:
**Effects on fertility**
Test Type: One generation study  
Species: rat, male and female  
Application Route: Inhalation  
Dose: 0, 100, 500 and 1000 ppm  
Duration of Single Treatment: 6 h  
General Toxicity - Parent: NOAEC: 1,000 ppm  
General Toxicity F1: NOAEC: 100 ppm  
Symptoms: Reduced foetal weight. Reduced offspring weight gain.  
Method: OECD Test Guideline 415  
Result: No reproductive effects.  
GLP: yes

### Effects on foetal development
Species: rat  
Application Route: Inhalation  
Dose: 0, 100, 500, 1000, 2000 ppm  
Duration of Single Treatment: 15 d  
General Toxicity Maternal: NOAEC: 500 ppm  
Teratogenicity: NOAEC: 2,000 ppm  
Developmental Toxicity: NOAEC: 500 ppm  
Symptoms: Reduced body weight  
Method: OECD Test Guideline 414  
Result: Developmental toxicity occurred at maternal toxicity dose levels  
GLP: No data available

Reproductive toxicity - Assessment: Fertility classification not possible from current data. Embryotoxicity classification not possible from current data.

### 142-82-5:
**Effects on fertility**
Test Type: Two-generation study  
Species: rat, male and female  
Application Route: vapour  
Dose: 0, 900, 3000, 9000 ppm  
Frequency of Treatment: 5 days/week  
General Toxicity - Parent: NOAEC: 3,000 ppm  
General Toxicity F1: NOAEC: 3,000 ppm  
Fertility: NOAEC: 9,000 ppm  
Symptoms: Reduced maternal body weight gain. Re-
duced offspring weight gain.
Method: OECD Test Guideline 416
Result: No reproductive effects.
GLP: yes
Remarks: Information given is based on data obtained from similar substances.

<table>
<thead>
<tr>
<th>Effects on foetal development</th>
<th>Species: mouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Route: inhalation (vapour)</td>
<td></td>
</tr>
<tr>
<td>Dose: 0, 900, 3000, 9000 ppm</td>
<td></td>
</tr>
<tr>
<td>Duration of Single Treatment: 10 d</td>
<td></td>
</tr>
<tr>
<td>Frequency of Treatment: 6 hr/day</td>
<td></td>
</tr>
<tr>
<td>General Toxicity Maternal: NOAEC: 900 ppm</td>
<td></td>
</tr>
<tr>
<td>Developmental Toxicity: NOAEC: 3,000 ppm</td>
<td></td>
</tr>
<tr>
<td>Symptoms: Skeletal malformations.</td>
<td></td>
</tr>
<tr>
<td>Method: OECD Test Guideline 414</td>
<td></td>
</tr>
<tr>
<td>GLP: yes</td>
<td></td>
</tr>
<tr>
<td>Remarks: Information given is based on data obtained from similar substances.</td>
<td></td>
</tr>
</tbody>
</table>

Reproductive toxicity - Assessment: Animal testing did not show any effects on fertility. Embryotoxicity classification not possible from current data.

**STOT - single exposure**
**Product:** No data available

**Components:**

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs</th>
<th>Assessment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs</th>
<th>Assessment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
<td></td>
</tr>
</tbody>
</table>
64742-89-8: No data available

<table>
<thead>
<tr>
<th>Exposure routes:</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>May cause drowsiness or dizziness. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
<td></td>
</tr>
</tbody>
</table>

108-65-6: No data available

<table>
<thead>
<tr>
<th>Exposure routes:</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>May cause drowsiness or dizziness.</td>
<td></td>
</tr>
</tbody>
</table>

110-19-0:

<table>
<thead>
<tr>
<th>Exposure routes:</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects., May cause drowsiness or dizziness.</td>
<td></td>
</tr>
</tbody>
</table>

123-86-4:

<table>
<thead>
<tr>
<th>Exposure routes:</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
</table>
### Inhalation

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs</th>
<th>Assessment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Central nervous system</td>
<td>May cause drowsiness or dizziness., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.</td>
<td></td>
</tr>
</tbody>
</table>

#### 1330-20-7:

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs</th>
<th>Assessment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Respiratory system</td>
<td>May cause respiratory irritation., The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.</td>
<td></td>
</tr>
</tbody>
</table>

100-41-4: No data available

142-82-5: No data available

### STOT - repeated exposure

**Product:** No data available

**Components:**

- **67-64-1:** No data available
- **64742-49-0:** No data available
**64742-89-8:** No data available

**68410-97-9:** No data available

**108-65-6:** No data available

**108-88-3:**

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Auditory system, Eyes</td>
<td>May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.</td>
<td></td>
</tr>
</tbody>
</table>

**110-19-0:** No data available

**123-86-4:** No data available

**1330-20-7:**

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liver, Kidney, Central nervous system</td>
<td>May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.</td>
<td></td>
</tr>
</tbody>
</table>

**100-41-4:**

<table>
<thead>
<tr>
<th>Exposure routes</th>
<th>Target Organs:</th>
<th>Assessment:</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory system</td>
<td>May cause damage to organs through prolonged or repeated exposure. The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**142-82-5:** No data available

**Repeated dose toxicity**

**Components:**

**67-64-1:**
Species: mouse, male  
NOAEL: 20000  
Application Route: Oral  
Exposure time: 13 wk  
Number of exposures: daily  
Dose: 1250, 2500, 5000, 10000, 20000  
Method: OECD Test Guideline 408  
GLP: No data available

Species: mouse, female  
NOAEL: 20000  
LOAEL: 50000  
Application Route: Oral  
Exposure time: 13 wk  
Number of exposures: daily  
Dose: 2500, 5000, 10000, 20000, 5000  
Method: OECD Test Guideline 408  
GLP: No data available

Repeated dose toxicity assessment: Causes mild skin irritation., Causes serious eye irritation.

**64742-89-8:**
Species: rat, male and female  
NOAEL: 1402  
Application Route: inhalation (vapour)  
Test atmosphere: vapour  
Exposure time: 13 weeks  
Number of exposures: 6 hours/day, 5 days/week  
Dose: 322, 1402, 9869 mg/m3  
GLP: yes
Target Organs: Kidney
Symptoms: Nasal and ocular discharge

108-65-6:
Species: rat, male and female
NOAEL: > 1,000 mg/kg
Application Route: Oral
Dose: 0, 100, 300, 1000 mg/kg
Method: OECD Test Guideline 422

108-88-3:
Species: rat, male and female
NOAEL: 300
Application Route: inhalation (vapour)
Exposure time: 6, 12, or 18 mths
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 30, 100, 300 ppm
Method: OECD Test Guideline 453

Repeated dose toxicity - Causes skin irritation.
Assessment

110-19-0:
Species: rat
NOAEL: 316 mg/kg
Application Route: Oral
Exposure time: 92 d

123-86-4:
Species: rat, male and female
NOAEL: 500
Application Route: inhalation (vapour)
Exposure time: 13 wk
Number of exposures: 6 h/d, 5d/wk
Dose: 500, 1500, 3000 ppm
GLP: yes
Symptoms: oral or nasal discharge

1330-20-7:
Species: rat, male and female
NOAEL: 250 mg/kg
Application Route: Oral
Exposure time: 103 wk
Number of exposures: 5 d/wk
Dose: 0, 250 or 500 mg/kg
Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

100-41-4:
Species: rat, male and female
NOAEL: 75 mg/kg
Application Route: Oral
Exposure time: 28 d
Dose: 75, 250 and 750 mg/kg bw/day
Method: OECD Test Guideline 407
GLP: yes
Symptoms: Increased kidney and liver weights

142-82-5:
Species: rat, male
NOAEL: 12470 mg/m3
Application Route: inhalation (vapour)
Exposure time: 16 wks
Number of exposures: 12 h/d, 7 d/wk
Dose: 0, 12470 mg/3

Repeated dose toxicity - Causes skin irritation.
Assessment

Aspiration toxicity

Components:
64742-49-0:
May be fatal if swallowed and enters airways.

64742-89-8:
May be fatal if swallowed and enters airways.

68410-97-9:
May be fatal if swallowed and enters airways.

108-88-3:
Aspiration Toxicity - Category 1

1330-20-7:
May be fatal if swallowed and enters airways.

100-41-4:
May be fatal if swallowed and enters airways.

142-82-5:
Aspiration Toxicity - Category 1

Further information

Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, naussea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.
### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity to Fish</th>
<th>Exposure Time</th>
<th>Test Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): 6,100 mg/l</td>
<td>48 h</td>
<td>Test Substance: Acetone</td>
</tr>
<tr>
<td>64742-49-0</td>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): 10 mg/l</td>
<td>96 h</td>
<td></td>
</tr>
<tr>
<td>64742-89-8</td>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): 8.2 mg/l</td>
<td>96 h</td>
<td>Test Type: semi-static test</td>
</tr>
</tbody>
</table>

**Ecotoxicology Assessment**

- **Acute aquatic toxicity:** Toxic to aquatic life.
- **Chronic aquatic toxicity:** Toxic to aquatic life with long lasting effects.
<table>
<thead>
<tr>
<th>Test Type</th>
<th>Chemical</th>
<th>Acute aquatic toxicity</th>
<th>Chronic aquatic toxicity</th>
<th>Exposure time</th>
<th>LC50/EC50</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>static test</td>
<td>68410-97-9</td>
<td>Toxic to aquatic life.</td>
<td>Toxic to aquatic life with long lasting effects.</td>
<td>96 h</td>
<td>3.7 mg/l</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>static test</td>
<td>108-65-6</td>
<td>Toxic to aquatic life.</td>
<td>Toxic to aquatic life with long lasting effects.</td>
<td>96 h</td>
<td>5.5 mg/l</td>
<td>OECD Test Guideline 203</td>
</tr>
<tr>
<td>Immobilization</td>
<td>108-88-3</td>
<td>LC50 (Daphnia magna (Water flea)): 4.5 mg/l</td>
<td>EC50 (Pseudokirchneriella subcapitata (green algae)): 3.1 mg/l</td>
<td>48 h</td>
<td>TC50 (Selenastrum capricornutum (green algae)): &gt; 1,000 mg/l</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td>flow-through test</td>
<td>108-88-3</td>
<td>LC50 (Oncorhynchus mykiss (rainbow trout)): &gt; 100 mg/l</td>
<td>EC50 (Selenastrum capricornutum (green algae)): &gt; 1,000 mg/l</td>
<td>96 h</td>
<td>3.1 mg/l</td>
<td>OECD Test Guideline 203</td>
</tr>
<tr>
<td>Test Type</td>
<td>EC50 or IC50</td>
<td>Substance</td>
<td>Exposure Time</td>
<td>Test Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
<td>-----------</td>
<td>--------------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewal</td>
<td>3.78 mg/l</td>
<td>Ceriodaphnia dubia</td>
<td>48 h</td>
<td>Renewal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Static</td>
<td>134 mg/l</td>
<td>Chlorella vulgaris (Fresh water algae)</td>
<td>3 h</td>
<td>Static</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Static</td>
<td>84 mg/l</td>
<td>Bacteria</td>
<td>24 h</td>
<td>Static</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Static</td>
<td>25 mg/l</td>
<td>Daphnia magna (Water flea)</td>
<td>48 h</td>
<td>Static</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Static</td>
<td>370 mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>72 h</td>
<td>Static</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow-through test</td>
<td>17 mg/l</td>
<td>Oryzias latipes (Japanese medaka)</td>
<td>96 h</td>
<td>Flow-through test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>static test</td>
<td>25 mg/l</td>
<td>Daphnia magna (Water flea)</td>
<td>48 h</td>
<td>static test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>static test</td>
<td>370 mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>72 h</td>
<td>static test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ecotoxicology Assessment

Acute aquatic toxicity: Toxic to aquatic life.
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

110-19-0:

<table>
<thead>
<tr>
<th>Test Type</th>
<th>EC50 or IC50</th>
<th>Substance</th>
<th>Exposure Time</th>
<th>Test Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>17 mg/l</td>
<td>Oryzias latipes (Japanese medaka)</td>
<td>96 h</td>
<td>LC50</td>
</tr>
<tr>
<td>static test</td>
<td>25 mg/l</td>
<td>Daphnia magna (Water flea)</td>
<td>48 h</td>
<td>static test</td>
</tr>
<tr>
<td>static test</td>
<td>370 mg/l</td>
<td>Pseudokirchneriella subcapitata</td>
<td>72 h</td>
<td>static test</td>
</tr>
</tbody>
</table>

Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.
Chronic aquatic toxicity: This product has no known ecotoxicological effects.

123-86-4:

<table>
<thead>
<tr>
<th>Test Type</th>
<th>EC50 or LC50</th>
<th>Substance</th>
<th>Exposure Time</th>
<th>Test Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>18 mg/l</td>
<td>Pimephales promelas (fathead minnow)</td>
<td>96 h</td>
<td>LC50</td>
</tr>
<tr>
<td>flow-through test</td>
<td>44 mg/l</td>
<td>Daphnia magna (Water flea)</td>
<td>48 h</td>
<td>flow-through test</td>
</tr>
<tr>
<td>static test</td>
<td>674.7 mg/l</td>
<td>Desmodesmus subspicatus (green algae)</td>
<td></td>
<td>static test</td>
</tr>
<tr>
<td>End point: Growth rate</td>
<td>Exposure time: 72 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</td>
<td>NOEC (Daphnia magna (Water flea)): 23 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure time: 21 d</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toxicity to bacteria</td>
<td>EC 50 (Tetrahymena pyriformis (Ciliate)): 356 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure time: 40 h</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test Type: Static</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ecotoxicology Assessment**

**Acute aquatic toxicity**: Harmful to aquatic life.

**Chronic aquatic toxicity**: Harmful to aquatic life with long lasting effects.

### 1330-20-7:

**Toxicity to fish**: LC50 (Oncorhynchus mykiss (rainbow trout)): 2.6 mg/l

<table>
<thead>
<tr>
<th>Exposure time: 96 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: OECD Test Guideline 203</td>
</tr>
</tbody>
</table>

**Toxicity to daphnia and other aquatic invertebrates**: EC50 (Daphnia magna (Water flea)): 1 mg/l

<table>
<thead>
<tr>
<th>Exposure time: 24 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Type: static test</td>
</tr>
<tr>
<td>Method: OECD Test Guideline 202</td>
</tr>
</tbody>
</table>

**Toxicity to algae**: EC50 (Pseudokirchneriella subcapitata): 4.36 mg/l

<table>
<thead>
<tr>
<th>End point: Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time: 73 h</td>
</tr>
<tr>
<td>Test Type: static test</td>
</tr>
<tr>
<td>Analytical monitoring: yes</td>
</tr>
<tr>
<td>Method: OECD Test Guideline 201</td>
</tr>
<tr>
<td>GLP: yes</td>
</tr>
</tbody>
</table>

**Ecotoxicology Assessment**

**Acute aquatic toxicity**: Toxic to aquatic life.

**Chronic aquatic toxicity**: Toxic to aquatic life with long lasting effects.

### 100-41-4:

**Toxicity to fish**: LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 mg/l

<table>
<thead>
<tr>
<th>Exposure time: 96 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Type: semi-static test</td>
</tr>
</tbody>
</table>

**Toxicity to daphnia and other aquatic invertebrates**: EC50 (Daphnia magna (Water flea)): 1.8 mg/l

<table>
<thead>
<tr>
<th>Exposure time: 48 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Type: static test</td>
</tr>
</tbody>
</table>
### Toxicity to algae

Toxicity to algae: EC50 (Pseudokirchneriella subcapitata): 5.4 mg/l  
Exposure time: 72 h  
Test Type: static test

### Toxicity to bacteria

Toxicity to bacteria: Remarks: No data available

### Ecotoxicology Assessment

Ecotoxicology Assessment
Acute aquatic toxicity: Toxic to aquatic life.

### Chronic aquatic toxicity

Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

### 142-82-5:

**Toxicity to fish**

Toxicity to fish: LC50 (Carassius auratus (goldfish)): 4 mg/l  
Exposure time: 24 h  
Remarks: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Toxicity to daphnia and other aquatic invertebrates**

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 1.5 mg/l  
Exposure time: 48 h  
Test Type: static test  
Remarks: Very toxic to aquatic organisms.

### Toxicity to algae

Toxicity to algae: Remarks: No data available

### Ecotoxicology Assessment

Ecotoxicology Assessment
Acute aquatic toxicity: Very toxic to aquatic life.

### Chronic aquatic toxicity

Chronic aquatic toxicity: Very toxic to aquatic life with long lasting effects.

### Persistence and degradability

**Components:**

**67-64-1:**

Biodegradability: Remarks: Readily biodegradable

**64742-49-0:**

Biodegradability: aerobic  
Inoculum: activated sludge  
Concentration: 20 mg/l  
Biodegradation: 74.30 %  
Exposure time: 56 d  
GLP: yes  
Remarks: Inherently biodegradable.

**64742-89-8:**

Biodegradability: Concentration: 49.2 mg/l  
Result: Readily biodegradable.  
Biodegradation: 77 %  
Testing period: 2 d
<table>
<thead>
<tr>
<th>Compound</th>
<th>Biodegradability</th>
<th>Concentration</th>
<th>Result</th>
<th>Method</th>
<th>Exposure time</th>
<th>GLP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>108-65-6:</strong></td>
<td>aerobic</td>
<td>76.4 mg/l</td>
<td>Readily biodegradable.</td>
<td>OECD Test Guideline 301D</td>
<td>28 d</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biochemical Oxygen Demand (BOD)</td>
<td>0.36 mg/l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Oxygen Demand (COD)</td>
<td>1.74 mg/l</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>108-88-3:</strong></td>
<td></td>
<td></td>
<td>Readily biodegradable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>110-19-0:</strong></td>
<td></td>
<td></td>
<td>Readily biodegradable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>123-86-4:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1330-20-7:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
100-41-4:
Biodegradability: Inoculum: activated sludge
Concentration: 22 mg/l
Result: Readily biodegradable.
Biodegradation: 70 %
Exposure time: 28 d
GLP: yes

142-82-5:
Biodegradability: Primary biodegradation
Inoculum: activated sludge
Concentration: 100 mg/l
Biodegradation: 100 %
Testing period: 2 d
Exposure time: 25 d
Remarks: Readily biodegradable

Bioaccumulative potential

Components:
67-64-1:
Partition coefficient: n-octanol/water: log Pow: -0.24

64742-49-0:
Partition coefficient: n-octanol/water: Remarks: No data available

64742-89-8:
Partition coefficient: n-octanol/water: log Pow: 2.13 - 4.85 (25 °C)

108-65-6:
Partition coefficient: n-octanol/water: log Pow: 0.43

108-88-3:
Partition coefficient: n-octanol/water: log Pow: 2.73

110-19-0:
Partition coefficient: n-octanol/water: log Pow: 1.78

123-86-4:
Bioaccumulation: Species: Fish
Bioconcentration factor (BCF): 15
Partition coefficient: n-octanol/water: log Pow: 1.82
octanol/water

**1330-20-7:**
Partition coefficient: n-octanol/water

: log Pow: 2.77 - 3.15

**100-41-4:**
Partition coefficient: n-octanol/water

: log Pow: 2.92

**Mobility in soil**
No data available

**Other adverse effects**

**Product:**
Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

**Components:**

**100-41-4:**
Results of PBT and vPvB assessment

: This substance is not considered to be persistent, bio-accumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**
Waste from residues: Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1263, PAINT RELATED MATERIAL, 3, II, Flash Point:-18 °C(-0.40 °F)

IMDG (International Maritime Dangerous Goods): UN1263, PAINT RELATED MATERIAL, 3, II

DOT (Department of Transportation): UN1263, PAINT RELATED MATERIAL, 3, II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: Flammable liquid, Carcinogen, Harmful by skin absorption., Moderate skin irritant, Moderate eye irritant, Moderate respiratory irritant, Teratogen, Reproductive hazard, Mutagen

WHMIS Classification: Flammable Liquid
D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed xylenes</td>
<td>1330-20-7</td>
<td>100</td>
<td>1901</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard
Chronic Health Hazard
Acute Health Hazard

Clean Air Act
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

108-88-3 Toluene 10.54 %
100-41-4 Ethylbenzene 1.5983 %
71-43-2 Benzene 0.0281 %
110-54-3 Hexane 0.0031 %
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Methanol</td>
<td>0.0022 %</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>0.0003 %</td>
</tr>
<tr>
<td>98-82-8</td>
<td>Cumene</td>
<td>0.000 %</td>
</tr>
</tbody>
</table>

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A:

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>10.54 %</td>
</tr>
<tr>
<td>110-19-0</td>
<td>Isobutyl acetate</td>
<td>10.5389 %</td>
</tr>
<tr>
<td>123-86-4</td>
<td>n-Butyl acetate</td>
<td>5.3421 %</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Mixed xylenes</td>
<td>5.2608 %</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1.5983 %</td>
</tr>
<tr>
<td>110-82-7</td>
<td>Cyclohexane</td>
<td>0.3931 %</td>
</tr>
<tr>
<td>71-43-2</td>
<td>Benzene</td>
<td>0.0281 %</td>
</tr>
<tr>
<td>67-56-1</td>
<td>Methanol</td>
<td>0.0022 %</td>
</tr>
<tr>
<td>98-82-8</td>
<td>Cumene</td>
<td>0.000 %</td>
</tr>
</tbody>
</table>

The following Hazardous Chemicals are listed under the U.S. Clean Water Act, Section 311, Table 117.3:

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>10.54 %</td>
</tr>
<tr>
<td>123-86-4</td>
<td>n-Butyl acetate</td>
<td>5.3421 %</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Mixed xylenes</td>
<td>5.2608 %</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1.5983 %</td>
</tr>
<tr>
<td>110-82-7</td>
<td>Cyclohexane</td>
<td>0.3931 %</td>
</tr>
<tr>
<td>71-43-2</td>
<td>Benzene</td>
<td>0.0281 %</td>
</tr>
<tr>
<td>91-20-3</td>
<td>Naphthalene</td>
<td>0.0003 %</td>
</tr>
</tbody>
</table>

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>10.54 %</td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1.5983 %</td>
</tr>
</tbody>
</table>

**US State Regulations**

**Massachusetts Right To Know**

<table>
<thead>
<tr>
<th>Code</th>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>30 - 50 %</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>10 - 20 %</td>
</tr>
<tr>
<td>110-19-0</td>
<td>Isobutyl acetate</td>
<td>10 - 20 %</td>
</tr>
<tr>
<td>123-86-4</td>
<td>n-Butyl acetate</td>
<td>5 - 10 %</td>
</tr>
</tbody>
</table>
California Prop 65  
WARNING! This product contains a chemical known to the State of California to cause cancer.

- 100-41-4 Ethylbenzene
- 71-43-2 Benzene
- 91-20-3 Naphthalene
- 98-82-8 Cumene

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

- 108-88-3 Toluene
- 71-43-2 Benzene
- 67-56-1 Methanol

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

- Switzerland. New notified substances and declared y (positive listing)
preparations

<table>
<thead>
<tr>
<th>Country/Inventory</th>
<th>Status</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States TSCA Inventory</td>
<td>y</td>
<td>(On TSCA Inventory)</td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>y</td>
<td>(All components of this product are on the Canadian DSL.)</td>
</tr>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>y</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>n</td>
<td>(Not in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>n</td>
<td>(Not in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ISHL - Inventory of Chemical Substances (METI)</td>
<td>n</td>
<td>(Not in compliance with the inventory)</td>
</tr>
<tr>
<td>Korea. Korean Existing Chemicals Inventory (KECI)</td>
<td>y</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>y</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>China. Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>y</td>
<td>(On the inventory, or in compliance with the inventory)</td>
</tr>
</tbody>
</table>
SECTION 16. OTHER INFORMATION

VERSION 2.0
REVISION DATE 10/20/2016

NFPA:

HMIS III:

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Legacy MSDS: R0329927

Material number:
16069388, 547005, 146398

<p>| Key or legend to abbreviations and acronyms used in the safety data sheet |
|-----------------|-----------------|-----------------|-----------------|
| ACGIH | American Conference of Government Industrial Hygienists | LD50 | Lethal Dose 50% |
| AICS | Australia, Inventory of Chemical Substances | LOAEL | Lowest Observed Adverse Effect Level |
| DSL | Canada, Domestic Substances List | NFPA | National Fire Protection Agency |
| NDSL | Canada, Non-Domestic Substances List | NIOSH | National Institute for Occupational Safety &amp; Health |
| CNS | Central Nervous System | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service | NZIoC | New Zealand Inventory of Chemicals |
| EC50 | Effective Concentration | NOAEL | No Observable Adverse Effect Level |
| EC50 | Effective Concentration 50% | NOEC | No Observed Effect Concentration |
| EGEST | EOSCA Generic Exposure | OSHA | Occupational Safety &amp; Health Admin- |</p>
<table>
<thead>
<tr>
<th>Scenario Tool</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
</tr>
</tbody>
</table>