

# SAFETY DATA SHEET

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| Product Name<br>Product Code                                       | URETHANE GRADE REDUCER - EXTRA SLOW<br>#16401, 16404, 16405, 16455   |                       |  |
|--|--|-----------------------|--|
| Recommended Use  | SOLVENT<br>FOR PROFESSIONAL USE  | ONLY                  |  |
| Manufacturer/Importer/Supplier/                                    | Distributor information  |                       |  |
| Company name<br>Address<br>Distributed By:<br>Telephone<br>Website | Excel Autobody Products<br>P.O. Box 24631<br>West Palm Beach, FL<br>National Oak Distributors<br>United States<br>800-223-1918 |                       |  |
| Emergency phone number   | www.cumberlandproductsinc.   | com                   |  |
|  | EMERGENCY 24 Hrs.  | 800-424-9300 ChemTrec |  |

#### 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 tox-<br>icity - single exposure                   | : Category 3 (Central nervous system)                                      |
| Specific target organ tox-<br>icity - repeated exposure                 | : Category 2 (Liver, Kidney, Central nervous system, Au-<br>ditory system) |
| Specific target organ tox-<br>icity - repeated exposure<br>(Inhalation) | : Category 2 (Auditory system, Eyes)                                       |
|   |  |

| Aspiration hazard                      | : Category 1  |
|--|---|
| GHS Label element<br>Hazard pictograms |   |
| Signal word                            | : Danger  |
| Hazard statements                      | <ul> <li>H225 Highly flammable liquid and vapour.<br/>H304 May be fatal if swallowed and enters airways.<br/>H315 Causes skin irritation.<br/>H319 Causes serious eye irritation.<br/>H336 May cause drowsiness or dizziness.<br/>H340 May cause genetic defects.<br/>H351 Suspected of causing cancer.<br/>H361 Suspected of damaging fertility or the unborn<br/>child.<br/>H373 May cause damage to organs (Liver, Kidney,<br/>Central nervous system, Auditory system) through<br/>prolonged or repeated exposure.<br/>H373 May cause damage to organs (Auditory system,<br/>Eyes) through prolonged or repeated exposure if<br/>inhaled.</li> </ul>  |
| Precautionary statements               | <ul> <li><b>Prevention:</b></li> <li>P201 Obtain special instructions before use.</li> <li>P202 Do not handle until all safety precautions have been read and understood.</li> <li>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</li> <li>P233 Keep container tightly closed.</li> <li>P240 Ground/bond container and receiving equipment.</li> <li>P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.</li> <li>P242 Use only non-sparking tools.</li> <li>P243 Take precautionary measures against static discharge.</li> <li>P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.</li> <li>P264 Wash skin thoroughly after handling.</li> <li>P271 Use only outdoors or in a well-ventilated area.</li> <li>P280 Wear protective gloves/ eye protection/ face protection.</li> <li>P281 Use personal protective equipment as required.</li> <li><b>Response:</b></li> <li>P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.</li> </ul> |

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<br>It   |  |  |
|                  | 64742-89-8   | Solvent naphtha (pet), lt<br>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, colourless         |
| Hazard Summary | No information available. |

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

| CAS-No.  | Chemical Name                  | Concentration (%) |
|--|--------------------------------|-------------------|
| 763-69-9   | Ethyl 3-ethoxypropionate       | 30 - 50           |
| 123-86-4   | n-Butyl acetate                | 20 - 30           |
| 108-88-3   | Toluene                        | 5 - 10            |
| 78-93-3  | Methyl ethyl ketone            | 5 - 10            |
| 64742-49-0   | Naphtha (pet), hydrotreated It | 0 - 10            |
| 54742-89-8 Solvent naphtha (pet), lt aliph.                          |                                | 0 - 10            |
| 68410-97-9 Distillates, pet, lt dist hydrotreat process,<br>low-boil |                                | 0 - 10            |
| 1330-20-7  | Mixed xylenes                  | 1 - 5             |
| 100-41-4   | Ethylbenzene                   | 1 - 5             |

**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 | <ul> <li>Move out of dangerous area.</li> <li>Show this safety data sheet to the doctor in attendance.</li> <li>Symptoms of poisoning may appear several hours later.</li> <li>Do not leave the victim unattended.</li> </ul> |
|----------------|---|
| 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.<br>If on skin, rinse well with water.<br>If on clothes, remove clothes.   |
| In case of eye contact  | <ul> <li>Immediately flush eye(s) with plenty of water.<br/>Remove contact lenses.</li> <li>Protect unharmed eye.</li> <li>Keep eye wide open while rinsing.</li> <li>If eye irritation persists, consult a specialist.</li> </ul>   |
| If swallowed            | <ul> <li>Keep respiratory tract clear.<br/>Do NOT induce vomiting.<br/>Do not give milk or alcoholic beverages.<br/>Never give anything by mouth to an unconscious person.</li> <li>If symptoms persist, call a physician.<br/>Take victim immediately to hospital.</li> </ul> |

# **SECTION 5. FIREFIGHTING MEASURES**

| Suitable extinguishing media         | : Alcohol-resistant foam<br>Carbon dioxide (CO2)<br>Dry chemical  |
|--------------------------------------|---|
| Unsuitable extinguishing<br>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                  | <ul> <li>Collect contaminated fire extinguishing water separately. This must not be discharged into drains.</li> <li>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</li> <li>For safety reasons in case of fire, cans should be stored separately in closed containments.</li> </ul> |
| Special protective equip-            | : Wear self-contained breathing apparatus for fire-   |

ment for firefighters

fighting if necessary.

# **NFPA Flammable and Combustible Liquids Classification**: Flammable Liquid Class IB

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

| Personal precautions,<br>protective equipment and<br>emergency procedures | : | Use personal protective equipment.<br>Ensure adequate ventilation.<br>Remove all sources of ignition.<br>Evacuate personnel to safe areas.<br>Beware of vapours accumulating to form explosive<br>concentrations. Vapours can accumulate in low areas. |
|---|---|--|
| Environmental precau-<br>tions  | : | Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains<br>inform respective authorities.   |
| Methods and materials<br>for containment and<br>cleaning up               | : | Contain spillage, and then collect with non-<br>combustible absorbent material, (e.g. sand, earth,<br>diatomaceous earth, vermiculite) and place in con-<br>tainer for disposal according to local / national regula-<br>tions (see section 13).       |

#### **SECTION 7. HANDLING AND STORAGE**

| Advice on safe handling          | <ul> <li>Avoid formation of aerosol.<br/>Do not breathe vapours/dust.<br/>Avoid exposure - obtain special instructions before<br/>use.<br/>Avoid contact with skin and eyes.<br/>For personal protection see section 8.<br/>Smoking, eating and drinking should be prohibited in<br/>the application area.<br/>Take precautionary measures against static discharg-<br/>es.<br/>Provide sufficient air exchange and/or exhaust in work<br/>rooms.</li> <li>Open drum carefully as content may be under pres-<br/>sure.<br/>Dispose of rinse water in accordance with local and<br/>national regulations.</li> </ul> |
|----------------------------------|---|
| Conditions for safe stor-<br>age | : No smoking.<br>Keep container tightly closed in a dry and well-<br>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

| CAS-No.  | Components          | Value type | Control parame-  | Basis     |
|----------|---------------------|------------|------------------|-----------|
| CAS-NO.  | Components          | (Form of   | ters / Permissi- | Dasis     |
|          |                     |            | ble concentra-   |           |
|          |                     | exposure)  |                  |           |
| 122.06.4 |                     |            | tion             | 100111    |
| 123-86-4 | n-Butyl acetate     | TWA        | 150 ppm          | ACGIH     |
|          |                     | STEL       | 200 ppm          | ACGIH     |
|          |                     | ST         | 200 ppm          | NIOSH REL |
|          |                     |            | 950 mg/m3        |           |
|          |                     | TWA        | 150 ppm          | NIOSH REL |
|          |                     |            | 710 mg/m3        |           |
|          |                     | TWA        | 150 ppm          | OSHA Z-1  |
|          |                     |            | 710 mg/m3        |           |
|          |                     | TWA        | 150 ppm          | OSHA PO   |
|          |                     |            | 710 mg/m3        |           |
|          |                     | STEL       | 200 ppm          | OSHA P0   |
|          |                     |            | 950 mg/m3        |           |
| 108-88-3 | Toluene             | TWA        | 20 ppm           | ACGIH     |
|          |                     | TWA        | 100 ppm          | NIOSH REL |
|          |                     |            | 375 mg/m3        |           |
|          |                     | ST         | 150 ppm          | NIOSH REL |
|          |                     |            | 560 mg/m3        |           |
|          |                     | TWA        | 200 ppm          | OSHA Z-2  |
|          |                     | CEIL       | 300 ppm          | OSHA Z-2  |
|          |                     | Peak       | 500 ppm          | OSHA Z-2  |
|          |                     | TWA        | 100 ppm          | OSHA PO   |
|          |                     |            | 375 mg/m3        |           |
|          |                     | STEL       | 150 ppm          | OSHA PO   |
|          |                     |            | 560 mg/m3        |           |
| 78-93-3  | Methyl ethyl ketone | TWA        | 200 ppm          | ACGIH     |
|          |                     | STEL       | 300 ppm          | ACGIH     |
|          |                     | TWA        | 200 ppm          | NIOSH REL |
|          |                     |            | 590 mg/m3        |           |
|          |                     | ST         | 300 ppm          | NIOSH REL |
|          |                     |            | 885 mg/m3        |           |
|          |                     | TWA        | 200 ppm          | OSHA Z-1  |
|          |                     |            | 590 mg/m3        | 55        |
|          |                     | TWA        | 200 ppm          | OSHA PO   |
|          |                     |            | -00 ppm          | 5517710   |

#### **Components with workplace control parameters**

| 1          |                                     |      | 590 mg/m3              | 1         |
|------------|-------------------------------------|------|------------------------|-----------|
|            |                                     | STEL | 300 ppm<br>885 mg/m3   | OSHA PO   |
| 64742-49-0 | Naphtha (pet), hydrotreat-<br>ed It | TWA  | 500 ppm<br>2,000 mg/m3 | OSHA Z-1  |
|            |                                     | TWA  | 400 ppm<br>1,600 mg/m3 | OSHA PO   |
| 64742-89-8 | Solvent naphtha (pet), lt aliph.    | TWA  | 500 ppm<br>2,000 mg/m3 | OSHA Z-1  |
|            |                                     | TWA  | 400 ppm<br>1,600 mg/m3 | OSHA PO   |
| 1330-20-7  | Mixed xylenes                       | TWA  | 100 ppm                | ACGIH     |
|            |                                     | STEL | 150 ppm                | ACGIH     |
|            |                                     | TWA  | 100 ppm<br>435 mg/m3   | OSHA Z-1  |
| 100-41-4   | Ethylbenzene                        | TWA  | 20 ppm                 | ACGIH     |
|            |                                     | STEL | 125 ppm                | ACGIH     |
|            |                                     | TWA  | 100 ppm<br>435 mg/m3   | NIOSH REL |
|            |                                     | ST   | 125 ppm<br>545 mg/m3   | NIOSH REL |
|            |                                     | TWA  | 100 ppm<br>435 mg/m3   | OSHA Z-1  |
|            |                                     | TWA  | 100 ppm<br>435 mg/m3   | OSHA PO   |
|            |                                     | STEL | 125 ppm<br>545 mg/m3   | OSHA PO   |

# Biological occupational exposure limits

| Components | CAS-No.      | Control<br>parame-<br>ters | Biological specimen | Sam-<br>pling<br>time  | Permissi-<br>ble con-<br>centration | Basis        |
|------------|--------------|----------------------------|---------------------|--|-------------------------------------|--------------|
| Toluene    | 108-88-<br>3 | Toluene                    | In blood            | Prior to<br>last<br>shift of<br>work-<br>week                                      | 0.02 mg/l                           | ACGIH<br>BEI |
|            |              | Toluene                    | Urine               | End of<br>shift<br>(As<br>soon as<br>possible<br>after<br>expo-<br>sure<br>ceases) | 0.03 mg/l                           | ACGIH<br>BEI |
|            |              | o-Cresol                   | Urine               | End of<br>shift<br>(As   | 0.3 mg/g<br>Creatinine              | ACGIH<br>BEI |

|                     |              |   |          | soon as<br>possible<br>after<br>expo-<br>sure<br>ceases)                           |                       |              |
|---------------------|--------------|---|----------|--|-----------------------|--------------|
| Methyl ethyl ketone | 78-93-3      | МЕК   | In urine | End of<br>shift<br>(As<br>soon as<br>possible<br>after<br>expo-<br>sure<br>ceases) | 2 mg/l                | ACGIH<br>BEI |
| Ethylbenzene        | 100-41-<br>4 | Sum of<br>mandelic<br>acid and<br>phenyl<br>glyoxylic<br>acid | Urine    | End of<br>shift at<br>end of<br>work-<br>week                                      | 0.7 g/g<br>creatinine | ACGIH<br>BEI |

# Personal protective equipment

| Respiratory protection     | : | No personal respiratory protective equipment normally required.<br>In the case of vapour formation use a respirator with an approved filter.     |
|----------------------------|---|--|
| Hand protection<br>Remarks | : | The suitability for a specific workplace should be dis-<br>cussed with the producers of the protective gloves.                                   |
| Eye protection             | : | Eye wash bottle with pure water<br>Tightly fitting safety goggles<br>Wear face-shield and protective suit for abnormal pro-<br>cessing problems. |
| Skin and body protection   | : | impervious clothing<br>Choose body protection according to the amount and<br>concentration of the dangerous substance at the work<br>place.      |
| Hygiene measures           | : | When using do not eat or drink.<br>When using do not smoke.<br>Wash hands before breaks and at the end of workday.                               |

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance                                     | : liquid   |
|--|--|
| Colour   | : clear, colourless  |
| Odour  | : No data available  |
| Odour Threshold                                | : No data available  |
| рН   | : No data available  |
| Freezing Point                                 | : No data available  |
| Boiling Point (Boiling<br>point/boiling range) | : 56 - 140 °C (133 - 284 °F)<br>(1013 hPa)                 |
| Flash point                                    | : -4 °C (25 °F)  |
| Evaporation rate                               | : 1<br>Ethyl Ether   |
| Flammability (solid, gas)                      | ,  |
| Burning rate                                   | : No data available  |
| Upper explosion limit                          | : 10 %(V)<br>Calculated Explosive Limit                    |
| Lower explosion limit                          | : 1 %(V)<br>Calculated Explosive Limit                     |
| Vapour pressure                                | : 170.02 mmHg @ 20 °C (68 °F)<br>Calculated Vapor Pressure |
| Relative vapour density                        | : > 1(Air = 1.0)   |
| Relative density                               | : 0.89 @ 20 °C (68 °F)                                     |
| Density  | : 0.89 g/cm3 @ 20 °C (68 °F)                               |
|  | 7.4235 lb/gal @ 20 °C (68 °F)                              |
| Bulk density                                   | : No data available  |
| Water solubility                               | : No data available  |
| Solubility in other sol-<br>vents              | : No data available  |
| Partition coefficient: n-<br>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.<br>Vapours may form explosive mixture with air.  |
| Conditions to avoid                | <ul> <li>Keep away from heat, flame, sparks and other ignition<br/>sources.</li> <li>Extremes of temperature and direct sunlight.</li> <li>Exposure to light.</li> </ul>  |
| Incompatible materials             | <ul> <li>Acids <ul> <li>alkalis</li> <li>Amines</li> <li>Copper</li> <li>Copper alloys</li> <li>nitrates</li> <li>organic absorbents such as sawdust, peat moss,</li> <li>ground corn cobs, etc.</li> <li>Strong oxidizing agents</li> <li>Strong reducing agents</li> <li>Bases</li> <li>halogens</li> <li>metal salts</li> <li>Peroxides</li> </ul> </li> </ul> |

#### SECTION 11. TOXICOLOGICAL INFORMATION

# Acute toxicity

#### Product:

| Acute oral toxicity       | : Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method               |
|---------------------------|---|
| Acute inhalation toxicity | : Acute toxicity estimate : > 30000 ppm<br>Exposure time: 4 h<br>Test atmosphere: gas |

|                                  |   | Method: Calculation method  |
|----------------------------------|---|---|
| Acute dermal toxicity            | : | Acute toxicity estimate : > 5,000 mg/kg<br>Method: Calculation method   |
| Components:                      |   |   |
| 763-69-9:<br>Acute oral toxicity | : | LD50 (rat, male): > 5,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes  |
| Acute inhalation toxicity        | : | LC50 (rat): > 998 ppm<br>Exposure time: 6 h<br>Method: OECD Test Guideline 403<br>Symptoms: weight gain<br>GLP: No data available<br>Assessment: The component/mixture is low toxic after<br>short term inhalation. |
| Acute dermal toxicity            | : | LD50 (rabbit, male): 4,080 mg/kg<br>Method: OECD Test Guideline 402<br>Symptoms: no symptoms<br>GLP: no   |
| 123-86-4:                        |   |   |
| Acute oral toxicity              | : | LD50 (rat): > 5,000 mg/kg<br>Method: OECD Test Guideline 423<br>GLP: no   |
| Acute inhalation toxicity        | : | LC50 (rat, male and female): > 21 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Method: OECD Test Guideline 403<br>GLP: yes  |
| Acute dermal toxicity            | : | LD50 (rabbit, male and female): > 5,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes  |
| 108-88-3:                        |   |   |
| Acute oral toxicity              | : | LD50 (rat, male): > 5,580 mg/kg   |
| Acute inhalation toxicity        | : | LC50 (rat, male and female): 28.1 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapour<br>Method: OECD Test Guideline 403  |
| Acute dermal toxicity            | : | LD50 (rabbit): > 5,000 mg/kg  |
| 78-93-3:                         |   |   |
|                                  |   |   |

| Acute oral toxicity                | : LD50 (rat): 2,737 mg/kg  |
|------------------------------------|--|
| Acute inhalation toxicity          | : LC50 (mouse): 320 mg/l<br>Exposure time: 4 h   |
| Acute dermal toxicity              | : LD50 (rabbit): 6,480 mg/kg   |
| 64742-49-0:<br>Acute oral toxicity | : LD50 (rat, male and female): > 5,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes  |
| Acute inhalation toxicity          | : Remarks: No data available   |
| Acute dermal toxicity              | : LD50 (rabbit, male and female): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes   |
| 64742-89-8:<br>Acute oral toxicity | : LD50 (rat, male and female): > 5,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes  |
| Acute inhalation toxicity          | : Remarks: No data available   |
| Acute dermal toxicity              | : LD50 (rabbit, male and female): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes   |
| <b>68410-97-9:</b>                 |  |
| Acute oral toxicity                | : LD50 (rat): > 5,000 mg/kg  |
| Acute inhalation toxicity          | : Remarks: No data available   |
| Acute dermal toxicity              | : LD50 (rabbit): > 2,000 mg/kg   |
| 1330-20-7:<br>Acute oral toxicity  | : LD50 (rat, male): 3,523 mg/kg<br>Method: EU Method B.1 (Acute Toxicity, Oral)<br>GLP: no   |
| Acute inhalation toxicity          | : LC50 (rat, male): 6700 ppm<br>Exposure time: 4 h<br>Method: Directive 67/548/EEC, Annex V, B.2.<br>Assessment: The component/mixture is moderately<br>toxic after short term inhalation. |
| Acute dermal toxicity              | : LD50 (rabbit): 1,100 mg/kg<br>Assessment: The component/mixture is moderately<br>toxic after single contact with skin.   |

#### 100-41-4:

| Acute inhalation toxicity | : LC50 (Mouse, Male): 10 mg/l<br>Exposure time: 4 h<br>Assessment: The component/mixture is moderately<br>toxic after short term inhalation. |
|---------------------------|--|
| Acute dermal toxicity     | : LD50 (rabbit): 15,433 mg/kg  |

#### Skin corrosion/irritation

#### Product:

Remarks: Irritating to skin.

#### Components:

**763-69-9:** Species: rabbit Exposure time: 4 h Method: OECD Test Guideline 404 Result: Mild skin irritation GLP: no

#### 123-86-4:

Species: rabbit Method: OECD Test Guideline 404 Result: No skin irritation GLP: no

#### 108-88-3:

Species: rabbit Exposure time: 4 h Result: Irritating to skin.

#### 78-93-3:

Species: rabbit Exposure time: 24 h Result: No 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.

#### 1330-20-7:

Species: rabbit Exposure time: 24 h Result: Irritating to skin.

#### 100-41-4:

Species: rabbit Result: Mild skin irritation

#### Serious eye damage/eye irritation

#### Product:

Remarks: Irritating to eyes.

#### Components:

**763-69-9:** Species: rabbit Result: Mild eye irritation Method: OECD Test Guideline 405 GLP: no

#### 123-86-4:

Species: rabbit Result: No eye irritation GLP: yes

#### 108-88-3:

Species: rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405

#### 78-93-3:

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.

#### 1330-20-7:

Species: rabbit Result: Irritating to eyes.

#### 100-41-4:

Species: rabbit Result: Mild eye irritation

#### **Respiratory or skin sensitisation**

#### Components:

**763-69-9:** Species: guinea pig Method: OECD Test Guideline 406 Result: Did not cause sensitisation on laboratory animals.

#### 123-86-4:

Species: guinea pig Result: Did not cause sensitisation on laboratory animals.

#### 108-88-3:

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

#### 78-93-3:

Test Type: Buehler Test Species: guinea pig Method: OECD Test Guideline 406 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.

#### 1330-20-7:

Remarks: No data available

**100-41-4:** Remarks: No data available

#### Germ cell mutagenicity

Components:

| 763-69-9:                                 |  |
|---|--|
| Genotoxicity in vitro                     | : Test Type: Mammalian cell gene mutation assay<br>Test species: Chinese hamster ovary (CHO)<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: OECD Test Guideline 476<br>Result: negative<br>GLP: yes  |
|   | : Test Type: Ames test<br>Test species: Salmonella typhimurium<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: OECD Test Guideline 471<br>Result: negative<br>GLP: yes  |
|   | <ul> <li>Test Type: Chromosome aberration test in vitro<br/>Test species: Chinese hamster ovary (CHO)<br/>Metabolic activation: with and without metabolic activation<br/>Method: OECD Test Guideline 473<br/>Result: negative<br/>GLP: yes</li> </ul>   |
| Germ cell mutagenicity-<br>Assessment     | : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  |
| <b>123-86-4:</b><br>Genotoxicity in vitro | : Test Type: Chromosome aberration test in vitro<br>Test species: Chinese hamster lung fibroblasts<br>Metabolic activation: Without metabolic activation<br>Method: OECD Test Guideline 473<br>Result: negative<br>GLP: No data available  |
| Genotoxicity in vivo                      | <ul> <li>Test Type: In vivo micronucleus test<br/>Test species: mouse (male and female)<br/>Application Route: Oral<br/>Dose: 500, 1000, 2000 mg/kg bw<br/>Method: OECD Test Guideline 474<br/>Result: negative<br/>GLP: yes<br/>Test substance: Information given is based on data<br/>obtained from similar substances.</li> </ul> |
| Germ cell mutagenicity-<br>Assessment     | : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  |

108-88-3:

| Genotoxicity in vitro                                       | <ul> <li>Test Type: Mammalian cell gene mutation assay<br/>Test species: Mouse lymphoma cells<br/>Metabolic activation: with and without metabolic acti-<br/>vation<br/>Method: OECD Test Guideline 476<br/>Result: negative</li> </ul>                      |
|---|--|
| Genotoxicity in vivo  | <ul> <li>Test Type: Dominant lethal assay<br/>Test species: mouse (male)<br/>Application Route: inhalation (vapour)<br/>Exposure time: 6 h/d, 5 d/wk for 8 wks<br/>Dose: 0, 100, 400 ppm<br/>Method: OECD Test Guideline 478<br/>Result: negative</li> </ul> |
| Germ cell mutagenicity-<br>Assessment                       | : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  |
| <b>78-93-3:</b><br>Genotoxicity in vitro                    | : Test Type: Ames test<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: OECD Test Guideline 471  |
|   | Result: negative   |
|   | : Test Type: Mammalian cell gene mutation assay<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: OECD Test Guideline 476<br>Result: negative   |
|   | : Test Type: Chromosome aberration test in vitro<br>Method: OECD Test Guideline 473<br>Result: negative  |
| Genotoxicity in vivo  | : Test Type: In vivo micronucleus test<br>Test species: mouse (male and female)<br>Dose: 1.96 mL/kg<br>Method: OECD Test Guideline 474<br>Result: negative   |
| Germ cell mutagenicity-<br>Assessment                       | : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  |
| <b>64742-49-0:</b><br>Germ cell mutagenicity-<br>Assessment | : Mutagenicity classification not possible from current data   |
| 64742-89-8:<br>Germ cell mutagenicity-                      | : Mutagenicity classification not possible from current  |

| Assessment                                 | data   |
|--|--|
| 68410-97-9:<br>Genotoxicity in vitro       | : Test Type: Mammalian cell gene mutation assay<br>Test species: mouse lymphoma cells<br>Result: positive  |
| Genotoxicity in vivo                       | : Test Type: In vivo micronucleus test<br>Test species: mouse<br>Method: OECD Test Guideline 474<br>Result: positive   |
| Germ cell mutagenicity-<br>Assessment      | : Positive result(s) from in vivo heritable germ cell mu-<br>tagenicity tests in mammals   |
| <b>1330-20-7:</b><br>Genotoxicity in vitro | : Test Type: Chromosome aberration test in vitro<br>Test species: Chinese hamster ovary (CHO)<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: Mutagenicity (in vitro mammalian cytogenetic<br>test)<br>Result: negative |
|  | : Test Type: Sister chromatid exchange assay in mam-<br>malian cells<br>Test species: Chinese hamster ovary (CHO)<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Result: negative  |
| Genotoxicity in vivo                       | : Test Type: Dominant lethal assay<br>Test species: mouse<br>Application Route: Subcutaneous<br>Exposure time: 8 wk<br>Dose: 1.0 mL/kg<br>Method: OECD Test Guideline 478<br>Result: negative<br>GLP: no   |
| Germ cell mutagenicity-<br>Assessment      | : Animal testing did not show any mutagenic effects.   |
| <b>100-41-4:</b><br>Genotoxicity in vitro  | : Test Type: Chromosome aberration test in vitro<br>Test species: Chinese hamster ovary (CHO)<br>Metabolic activation: with and without metabolic acti-<br>vation<br>Method: OECD Test Guideline 473<br>Result: negative                               |

GLP: no

|                                       | <ul> <li>Test Type: Mammalian cell gene mutation assay<br/>Test species: mouse lymphoma cells<br/>Metabolic activation: with and without metabolic activation<br/>vation<br/>Method: OECD Test Guideline 476<br/>Result: negative<br/>GLP: yes</li> </ul> |
|---------------------------------------|---|
| Genotoxicity in vivo                  | : Test Type: In vivo micronucleus test<br>Test species: mouse (male)<br>Application Route: Oral<br>Method: OECD Test Guideline 474<br>Result: negative<br>GLP: yes  |
|                                       | Test Type: DNA damage and/or repair<br>Test species: mouse (male and female)<br>Application Route: Inhalation<br>Method: OECD Test Guideline 486<br>Result: negative<br>GLP: yes  |
| Germ cell mutagenicity-<br>Assessment | : In vivo tests did not show mutagenic effects  |

#### Carcinogenicity

#### Components:

763-69-9:

Remarks: This information is not available.

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

#### 123-86-4:

Remarks: This information is not available.

Carcinogenicity - As- : No evidence of carcinogenicity in animal studies. sessment

#### 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 - As- : Not classifiable as a human carcinogen. sessment

#### 78-93-3:

Remarks: This information is not available.

| Carcinogenicity - As- | : | Not classifiable as a human carcinogen. |
|-----------------------|---|---|
| sessment              |   |   |

#### 64742-49-0:

Carcinogenicity - As- : Not classifiable as a human carcinogen. sessment

#### 64742-89-8:

Carcinogenicity - As- : Not classifiable as a human carcinogen. sessment

#### 68410-97-9:

Species: mouse NOAEL: 50 mg/kg bw/day

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

Carcinogenicity - As- : Possible human carcinogen sessment

#### 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 Method: Directive 67/548/EEC, Annex V, B.32. Result: did not display carcinogenic properties GLP: No data available

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

#### 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 - As- | : | Suspected human carcinogens |
|-----------------------|---|-----------------------------|
| sessment              |   |                             |

#### **Reproductive toxicity**

#### **Components:**

| <b>763-69-9:</b><br>Effects on fertility | : Remarks: No data available  |
|--|---|
| Effects on foetal devel-<br>opment       | : Species: rat<br>Application Route: Inhalation<br>Dose: 125, 250, 500 and 1000 ppm<br>Duration of Single Treatment: 10 d<br>General Toxicity Maternal: NOAEC: 250 ppm<br>Teratogenicity: NOAEC: 1,000 ppm<br>Embryo-foetal toxicity.: NOAEC: 500 ppm<br>Method: OECD Test Guideline 414<br>Result: No teratogenic effects.<br>GLP: No data available   |
| Reproductive toxicity -<br>Assessment    | : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.   |
| <b>123-86-4:</b><br>Effects on fertility | : Species: rat, male and female<br>Application Route: Inhalation<br>Dose: 0, 750, 1500, 2000 ppm<br>Duration of Single Treatment: 6 h<br>Frequency of Treatment: 7 days/week<br>General Toxicity - Parent: NOAEC: 750 ppm<br>General Toxicity F1: NOAEC: 750 ppm<br>Fertility: NOAEC: 2,000 ppm<br>Early Embryonic Development: NOAEC: 750 ppm<br>Symptoms: Effect on reproduction capacity.<br>Method: OECD Test Guideline 416<br>GLP: yes |
| Effects on foetal devel-<br>opment       | : Species: rat, male and female<br>Application Route: vapour  |

|  | Dose: 500, 1500, 3000 ppm<br>Duration of Single Treatment: 6 h<br>Frequency of Treatment: 5 days/week<br>GLP: yes  |
|--|--|
| Reproductive toxicity -<br>Assessment    | : Fertility classification not possible from current data.<br>Embryotoxicity classification not possible from current<br>data.   |
| <b>108-88-3:</b><br>Effects on fertility | <ul> <li>Test Type: Two-generation study<br/>Species: rat, male and female<br/>Application Route: Inhalation<br/>Dose: 0, 100, 500, 2000 ppm<br/>Frequency of Treatment: 7 days/week<br/>General Toxicity - Parent: NOAEC: 500 ppm<br/>General Toxicity F1: NOAEC: 500 ppm<br/>Fertility: NOAEC: 2,000 ppm<br/>Symptoms: Reduced maternal body weight gain. Re-<br/>duced offspring weight gain.<br/>Method: OECD Test Guideline 416<br/>Result: Animal testing did not show any effects on<br/>fertility.<br/>GLP: yes</li> </ul> |
|  | Test Type: Fertility<br>Species: rat, male and female<br>Application Route: inhalation (vapour)<br>Dose: 0, 600, 1200 ppm<br>Frequency of Treatment: 7 days/week<br>General Toxicity - Parent: NOAEC: 600 ppm<br>Symptoms: Decreased sperm count<br>Result: Animal testing did not show any effects on<br>fertility.   |
| Effects on foetal devel-<br>opment       | : Species: rat<br>Application Route: inhalation (vapour)<br>Dose: 0, 250, 750, 1500, 3000 ppm<br>Duration of Single Treatment: 10 d<br>Frequency of Treatment: 6 hr/day<br>General Toxicity Maternal: NOAEC: 750 ppm<br>Developmental Toxicity: NOAEC: 750 ppm<br>Symptoms: Maternal toxicity, Reduced body weight,<br>Skeletal malformations.<br>GLP: yes   |
| Reproductive toxicity -<br>Assessment    | : Some evidence of adverse effects on sexual function<br>and fertility, and/or on development, based on animal<br>experiments.   |

78-93-3:

| Effects on foetal devel-<br>opment                          | : Species: rat, female<br>Application Route: Inhalation<br>Dose: 400, 1000, 3000 ppm<br>Duration of Single Treatment: 18 d<br>Frequency of Treatment: 7 days/week<br>General Toxicity Maternal: NOAEC: 1,002 ppm<br>Teratogenicity: NOAEC: 1,002 ppm<br>Method: OECD Test Guideline 414<br>GLP: no   |
|---|--|
| Reproductive toxicity -<br>Assessment                       | : Fertility classification not possible from current data.<br>Did not show teratogenic effects in animal experi-<br>ments.   |
| <b>64742-49-0:</b><br>Reproductive toxicity -<br>Assessment | : Fertility classification not possible from current data.<br>Embryotoxicity classification not possible from current<br>data.   |
| <b>64742-89-8:</b><br>Reproductive toxicity -<br>Assessment | : Fertility classification not possible from current data.<br>Embryotoxicity classification not possible from current data.  |
| <b>68410-97-9:</b><br>Reproductive toxicity -<br>Assessment | : Fertility classification not possible from current data.<br>Embryotoxicity classification not possible from current<br>data.   |
| <b>1330-20-7:</b><br>Effects on fertility                   | : Test Type: Two-generation study<br>Species: rat, male and female<br>Application Route: Inhalation<br>Dose: 0, 25, 100 and 500 ppm<br>Duration of Single Treatment: 6 h<br>Frequency of Treatment: 7 days/week<br>General Toxicity - Parent: NOAEC: > 500 ppm<br>General Toxicity F1: NOAEC: > 500 ppm<br>Early Embryonic Development: NOAEC: > 500 ppm<br>Result: No reproductive effects. |
| Effects on foetal devel-<br>opment                          | : Species: rat<br>Application Route: Inhalation<br>Dose: 0, 100, 500, 1000 or 2000 ppm<br>Duration of Single Treatment: 14 d<br>Frequency of Treatment: 6 hr/day<br>General Toxicity Maternal: NOAEC: 500 ppm<br>Teratogenicity: NOAEC: > 2,000<br>Developmental Toxicity: NOAEC: 100 ppm<br>Result: No teratogenic effects., Developmental toxicity   |

|  | occurred at maternal toxicity dose levels  |
|--|--|
| Reproductive toxicity -<br>Assessment    | : Animal testing did not show any effects on fertility.<br>Damage to fetus not classifiable  |
| <b>100-41-4:</b><br>Effects on fertility | <ul> <li>Test Type: One generation study<br/>Species: rat, male and female<br/>Application Route: Inhalation<br/>Dose: 0, 100, 500 and 1000 ppm<br/>Duration of Single Treatment: 6 h<br/>General Toxicity - Parent: NOAEC: 1,000 ppm<br/>General Toxicity F1: NOAEC: 100 ppm<br/>Symptoms: Reduced foetal weight. Reduced offspring<br/>weight gain.<br/>Method: OECD Test Guideline 415<br/>Result: No reproductive effects.<br/>GLP: yes</li> </ul> |
| Effects on foetal devel-<br>opment       | : Species: rat<br>Application Route: Inhalation<br>Dose: 0, 100, 500, 1000, 2000 ppm<br>Duration of Single Treatment: 15 d<br>General Toxicity Maternal: NOAEC: 500 ppm<br>Teratogenicity: NOAEC: 2,000 ppm<br>Developmental Toxicity: NOAEC: 500 ppm<br>Symptoms: Reduced body weight<br>Method: OECD Test Guideline 414<br>Result: Developmental toxicity occurred at maternal<br>toxicity dose levels<br>GLP: No data available                     |
| Reproductive toxicity -<br>Assessment    | : Fertility classification not possible from current data.<br>Embryotoxicity classification not possible from current<br>data.   |

# STOT - single exposure

Product:No data available Components: 763-69-9:No data available

# 123-86-4:

| Exposure routes: | Target Organs:            | Assessment:   | Remarks: |
|------------------|---------------------------|---|----------|
| Inhalation       | Central nervous<br>system | May cause drowsi-<br>ness or dizziness.,<br>The substance or<br>mixture is classified<br>as specific target |          |
|                  |                           | organ toxicant, sin-  |          |

|  | gle exposure, cate-<br>gory 3 with narcotic<br>effects. |  |
|--|---|--|
|--|---|--|

#### 108-88-3:

| <b>Exposure routes:</b> | Target Organs:            | Assessment:  | Remarks: |
|-------------------------|---------------------------|--|----------|
| Inhalation              | Central nervous<br>system | May cause drowsi-<br>ness or dizziness.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, sin-<br>gle exposure, cate-<br>gory 3 with narcotic<br>effects. |          |

#### 78-93-3:

| Exposure routes: | Target Organs:            | Assessment:  | Remarks: |
|------------------|---------------------------|--|----------|
| Inhalation       | Central nervous<br>system | May cause drowsi-<br>ness or dizziness.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, sin-<br>gle exposure, cate-<br>gory 3 with narcotic<br>effects. |          |

#### 64742-49-0:

| <b>Exposure routes:</b> | Target Organs:            | Assessment:  | Remarks: |
|-------------------------|---------------------------|--|----------|
| Inhalation              | Central nervous<br>system | May cause drowsi-<br>ness or dizziness.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, sin-<br>gle exposure, cate-<br>gory 3 with narcotic<br>effects. |          |

#### 64742-89-8:No data available

#### 68410-97-9:

| Exposure routes: | Target Organs:  | Assessment:         | Remarks: |
|------------------|-----------------|---------------------|----------|
| Inhalation       | Central nervous | May cause drowsi-   |          |
|                  | system          | ness or dizziness., |          |

|  | The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, sin-<br>gle exposure, cate-<br>gory 3 with narcotic<br>effects. |  |
|--|--|--|
|--|--|--|

#### 1330-20-7:

| Exposure routes: | Target Organs:     | Assessment:   | Remarks: |
|------------------|--------------------|---|----------|
| Inhalation       | Respiratory system | May cause respira-<br>tory irritation., The<br>substance or mix-<br>ture is classified as<br>specific target or-<br>gan toxicant, single<br>exposure, category<br>3 with respiratory<br>tract irritation. |          |

100-41-4:No data available

#### **STOT - repeated exposure**

**Product:**No data available

#### Components:

763-69-9:No data available

123-86-4:No data available

#### 108-88-3:

| Exposure routes: | Target Organs:           | Assessment:   | Remarks: |
|------------------|--------------------------|---|----------|
| Inhalation       | Auditory system,<br>Eyes | May cause damage<br>to organs through<br>prolonged or re-<br>peated exposure.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, re-<br>peated exposure,<br>category 2. |          |

78-93-3:No data available

64742-49-0:No data available

64742-89-8:No data available

68410-97-9:No data available

#### 1330-20-7:

| Exposure routes: | Target Organs:                             | Assessment:   | Remarks: |
|------------------|--|---|----------|
|                  | Liver, Kidney, Cen-<br>tral nervous system | May cause damage<br>to organs through<br>prolonged or re-<br>peated exposure.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, re-<br>peated exposure,<br>category 2. |          |

#### 100-41-4:

| Exposure routes: | Target Organs:  | Assessment:   | Remarks: |
|------------------|-----------------|---|----------|
|                  | Auditory system | May cause damage<br>to organs through<br>prolonged or re-<br>peated exposure.,<br>The substance or<br>mixture is classified<br>as specific target<br>organ toxicant, re-<br>peated exposure,<br>category 2. |          |

# Repeated dose toxicity

#### Components:

**763-69-9:** Species: rat, male and female NOAEL: 1,000 mg/kg Application Route: Oral Exposure time: 28 d Dose: 100 or 1000 mg/kg/day Method: OECD Test Guideline 407 GLP: yes

Species: rat, male and female NOAEL: 500 Application Route: Inhalation Exposure time: 13 wk Number of exposures: 6 h/d, 5 d/wk Dose: 250, 500 or 1000 ppm

#### 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

#### 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

#### 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

#### 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

#### **Aspiration toxicity**

<u>Components:</u> 108-88-3: Aspiration Toxicity - Category 1

**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.

1330-20-7:

May be fatal if swallowed and enters airways.

#### 100-41-4:

May be fatal if swallowed and enters airways.

#### **Further information**

#### Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

# SECTION 12. ECOLOGICAL INFORMATION

| Ecotoxicity  |   |
|--|---|
| <u>Components:</u><br>763-69-9:                          |   |
| Toxicity to fish   | : LC50 (Pimephales promelas (fathead minnow)): 55.3<br>mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Method: OECD Test Guideline 203<br>GLP: yes   |
| Toxicity to daphnia and other aquatic inverte-<br>brates | <ul> <li>EC50 (Daphnia magna (Water flea)): 479.7 mg/l<br/>Exposure time: 48 h<br/>Test Type: static test<br/>Method: OECD Test Guideline 202<br/>GLP: yes</li> </ul>   |
| Toxicity to algae  | <ul> <li>EC50 (Pseudokirchneriella subcapitata (green algae)):</li> <li>&gt; 114.86 mg/l</li> <li>End point: Growth rate</li> <li>Exposure time: 72 h</li> <li>Test Type: static test</li> <li>Method: OECD Test Guideline 201</li> <li>GLP: yes</li> </ul> |
| Toxicity to bacteria                                     | : IC50: > 5,000 mg/l<br>Exposure time: 16 h<br>Test Type: Growth inhibition<br>GLP:   |
| 123-86-4:  |   |
| Toxicity to fish   | <ul> <li>LC50 (Pimephales promelas (fathead minnow)): 18<br/>mg/l</li> <li>Exposure time: 96 h</li> <li>Test Type: flow-through test</li> <li>Method: OECD Test Guideline 203</li> <li>GLP: no</li> </ul>   |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 44 mg/l<br>Exposure time: 48 h<br>Test Type: static test   |
| Toxicity to algae  | : EC50 (Desmodesmus subspicatus (green algae)):<br>674.7 mg/l<br>End point: Growth rate<br>Exposure time: 72 h  |

| Toxicity to daphnia and<br>other aquatic inverte-<br>brates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 23 mg/l<br>Exposure time: 21 d   |
|--|---|
| Toxicity to bacteria   | : EC 50 (Tetrahymena pyriformis (Ciliate)): 356 mg/l<br>Exposure time: 40 h<br>Test Type: Static  |
| Ecotoxicology Assessment<br>Acute aquatic toxicity                             | : Harmful to aquatic life.  |
| Chronic aquatic toxicity   | : Harmful to aquatic life with long lasting effects.  |
| 108-88-3:  |   |
| Toxicity to fish   | <ul> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): 5.5 mg/l</li> <li>Exposure time: 96 h</li> <li>Test Type: flow-through test</li> </ul> |
| Toxicity to daphnia and other aquatic inverte-<br>brates                       | : EC50 (Ceriodaphnia dubia): 3.78 mg/l<br>Exposure time: 48 h<br>Test Type: Renewal   |
| Toxicity to algae  | : EC50 (Chlorella vulgaris (Fresh water algae)): 134<br>mg/l<br>Exposure time: 3 h<br>Test Type: static test                                |
| Toxicity to bacteria   | : IC50 (Bacteria): 84 mg/l<br>Exposure time: 24 h<br>Test Type: Static  |
| Ecotoxicology Assessment<br>Acute aquatic toxicity                             | : Toxic to aquatic life.  |
| Chronic aquatic toxicity   | : Toxic to aquatic life with long lasting effects.  |
| 78-93-3:   |   |
| Toxicity to fish   | : LC50 (Pimephales promelas (fathead minnow)): ><br>100 mg/l<br>Exposure time: 96 h   |
| Toxicity to daphnia and other aquatic inverte-<br>brates                       | : EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h<br>Test Type: Immobilization   |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata (green algae)):<br>> 100 mg/l<br>Exposure time: 72 h  |

| 64742-49-0:  |   |
|--|---|
| Toxicity to fish   | : LC50 (Oncorhynchus mykiss (rainbow trout)): 10 mg/l<br>Exposure time: 96 h  |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 4.5 mg/l<br>Exposure time: 48 h  |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata (green algae)):<br>3.71 mg/l<br>Exposure time: 96 h                                     |
| Ecotoxicology Assessment<br>Acute aquatic toxicity       | : Toxic to aquatic life.  |
| Chronic aquatic toxicity                                 | : Toxic to aquatic life with long lasting effects.  |
| 64742-89-8:  |   |
| Toxicity to fish   | : LC50 (Oncorhynchus mykiss (rainbow trout)): 8.2 mg/l  |
|  | Exposure time: 96 h<br>Test Type: semi-static test  |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 4.5 mg/l<br>Exposure time: 48 h<br>Test Type: Immobilization<br>Analytical monitoring: yes |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata (green algae)):<br>3.7 mg/l<br>Exposure time: 96 h<br>Test Type: static test            |
| Ecotoxicology Assessment<br>Acute aquatic toxicity       | : Toxic to aquatic life.  |
| Chronic aquatic toxicity                                 | : Toxic to aquatic life with long lasting effects.  |
| 68410-97-9:  |   |
| Toxicity to fish   | : LC50 (Pimephales promelas (fathead minnow)): 8.2<br>mg/l<br>Exposure time: 96 h   |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 4.5 mg/l<br>Exposure time: 48 h  |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata (green algae)):<br>3.1 mg/l<br>Exposure time: 72 h                                      |

|  | Method: OECD Test Guideline 201   |
|--|---|
| Ecotoxicology Assessment<br>Acute aquatic toxicity       | : Toxic to aquatic life.  |
| Chronic aquatic toxicity                                 | : Toxic to aquatic life with long lasting effects.  |
| 1330-20-7:   |   |
| Toxicity to fish   | <ul> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): 2.6 mg/l</li> <li>Exposure time: 96 h</li> <li>Method: OECD Test Guideline 203</li> </ul>  |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 1 mg/l<br>Exposure time: 24 h<br>Test Type: static test<br>Method: OECD Test Guideline 202   |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata): 4.36 mg/l<br>End point: Growth rate<br>Exposure time: 73 h<br>Test Type: static test<br>Analytical monitoring: yes<br>Method: OECD Test Guideline 201<br>GLP: yes |
| Ecotoxicology Assessment<br>Acute aquatic toxicity       | : Toxic to aquatic life.  |
| Chronic aquatic toxicity                                 | : Toxic to aquatic life with long lasting effects.  |
| 100-41-4:  |   |
| Toxicity to fish   | <ul> <li>LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2<br/>mg/l</li> <li>Exposure time: 96 h</li> <li>Test Type: semi-static test</li> </ul>  |
| Toxicity to daphnia and other aquatic inverte-<br>brates | : EC50 (Daphnia magna (Water flea)): 1.8 mg/l<br>Exposure time: 48 h<br>Test Type: static test  |
| Toxicity to algae  | : EC50 (Pseudokirchneriella subcapitata): 5.4 mg/l<br>Exposure time: 72 h<br>Test Type: static test   |
| Toxicity to bacteria                                     | : Remarks: No data available  |
| Ecotoxicology Assessment<br>Acute aquatic toxicity       | : Toxic to aquatic life.  |

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

# Persistence and degradability

| Components:                           |   |
|---------------------------------------|---|
| 763-69-9:                             |   |
| Biodegradability                      | <ul> <li>Primary biodegradation<br/>Inoculum: activated sludge<br/>Concentration: 34.8 mg/l<br/>Result: Readily biodegradable.<br/>Biodegradation: 99.8 %<br/>Testing period: 5 d<br/>Exposure time: 28 d<br/>Method: OECD Test Guideline 301B<br/>Remarks: The 10 day time window criterion is not<br/>fulfilled.</li> </ul> |
| Chemical Oxygen De-<br>mand (COD)     | : 0.002 mg/g  |
| Theoritical Oxygen De-<br>mand (ThOD) | : 0.00197 mg/g  |
| 123-86-4:                             |   |
| Biodegradability                      | : Biodegradation: 83 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 301D   |
| Chemical Oxygen De-<br>mand (COD)     | : 0.00169 mg/g  |
| BOD/COD                               | : BOD/COD: 72 %   |
| Theoritical Oxygen De-<br>mand (ThOD) | : 0.0022 mg/g   |
| 108-88-3:                             |   |
| Biodegradability                      | : Inoculum: Sewage<br>Biodegradation: 100 %<br>Remarks: Readily biodegradable   |
| 78-93-3:                              |   |
| Biodegradability                      | : Concentration: 2 mg/l<br>Result: Readily biodegradable.<br>Biodegradation: 98 %<br>Exposure time: 28 d<br>Test substance: Methylethyl Ketone<br>GLP: yes<br>Remarks: Readily biodegradable  |

# 64742-49-0:

| Biodegradability | : aerobic<br>Inoculum: activated sludge<br>Concentration: 20 mg/l<br>Biodegradation: 74.30 % |
|------------------|--|
|                  | Exposure time: 56 d<br>GLP: yes  |
|                  | Remarks: Inherently biodegradable.   |
| 64742-89-8:      |  |

#### Diadagendahility

| Biodegradability | : Concentration: 49.2 mg/l     |
|------------------|--------------------------------|
|                  | Result: Readily biodegradable. |
|                  | Biodegradation: 77 %           |
|                  | Testing period: 2 d            |
|                  | Exposure time: 28 d            |
|                  | GLP: yes                       |

#### 1330-20-7:

| Biodegradability | : Inoculum: activated sludge<br>Result: Readily biodegradable.<br>Biodegradation: 72 %<br>Exposure time: 20 d |
|------------------|---|
|                  |   |

#### 100-41-4:

| Biodegradability | : Inoculum: activated sludge   |
|------------------|--------------------------------|
|                  | Concentration: 22 mg/l         |
|                  | Result: Readily biodegradable. |
|                  | Biodegradation: 70 %           |
|                  | Exposure time: 28 d            |
|                  | GLP: yes                       |

#### **Bioaccumulative potential**

# Components:763-69-9:Partition coefficient: n-<br/>octanol/water123-86-4:Bioaccumulation: Species: Fish<br/>Bioconcentration factor (BCF): 15Partition coefficient: n-<br/>octanol/water108-88-3:<br/>Partition coefficient: n-<br/>octanol/water: log Pow: 2.73<br/>octanol/water

| <b>64742-49-0:</b><br>Partition coefficient: n-<br>octanol/water | : Remarks: No data available   |
|--|--|
| <b>64742-89-8:</b><br>Partition coefficient: n-<br>octanol/water | : log Pow: 2.13 - 4.85 (25 °C)   |
| <b>1330-20-7:</b><br>Partition coefficient: n-<br>octanol/water  | : log Pow: 2.77 - 3.15   |
| <b>100-41-4:</b><br>Partition coefficient: n-<br>octanol/water   | : log Pow: 2.92  |
| <b>Mobility in soil</b><br>No data available                     |  |
| Other adverse effects  |  |
| Product:   |  |
| Regulation   | 40 CFR Protection of Environment; Part 82 Protection<br>of Stratospheric Ozone - CAA Section 602 Class I Sub-<br>stances   |
| 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 in-<br>formation                           | : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.  |
| Components:  |  |
| <b>100-41-4:</b><br>Results of PBT and vPvB<br>assessment        | : This substance is not considered to be persistent, bio-<br>accumulating nor toxic (PBT). This substance is not<br>considered to be very persistent nor very bioaccumu-<br>lating (vPvB). |

#### SECTION 13. DISPOSAL CONSIDERATIONS

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

| Contaminated packaging | <ul> <li>Empty remaining contents.</li> <li>Dispose of as unused product.</li> <li>Do not re-use empty containers.</li> <li>Do not burn, or use a cutting torch on, the empty drum.</li> </ul> |
|------------------------|--|
|                        |  |

#### **SECTION 14. TRANSPORT INFORMATION**

**IATA (International Air Transport Association)**: UN1263, PAINT RELATED MATERIAL, 3, II, Flash Point:-4 °C(25 °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<br>absorption., Moderate skin irritant, Moderate eye<br>irritant, Moderate respiratory irritant, Teratogen,<br>Reproductive hazard, Mutagen, Aspiration hazard                                    |  |
|----------------------|---|--|
| WHMIS Classification | <ul> <li>B2: Flammable liquid</li> <li>D1A: Very Toxic Material Causing Immediate and<br/>Serious Toxic Effects</li> <li>D2A: Very Toxic Material Causing Other Toxic Effects</li> <li>D2B: Toxic Material Causing Other Toxic Effects</li> </ul> |  |

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

#### **CERCLA Reportable Quantity**

| Components    | CAS-No.   | Component<br>RQ (lbs) | Calculated product<br>RQ (lbs) |
|---------------|-----------|-----------------------|--------------------------------|
| Mixed xylenes | 1330-20-7 | 100                   | 2054                           |

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

| -            |         | •         | • /                |
|--------------|---------|-----------|--------------------|
| Components   | CAS-No. | Component | Calculated product |
|              |         | RQ (lbs)  | RQ (lbs)           |
| Formaldehyde | 50-00-0 | 100       | *                  |

\*: Calculated RQ exceeds reasonably attainable upper limit.

#### 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 8 7920 %

|            | 108-88-3          | loluene                                | 8.7920 %                 |
|------------|-------------------|--|--------------------------|
|            | 100-41-4          | Ethylbenzene                           | 1.4728 %                 |
|            | 71-43-2           | Benzene                                | 0.0146 %                 |
|            | 50-00-0           | Formaldehyde                           | 0.0085 %                 |
|            | 110-54-3          | Hexane                                 | 0.0011 %                 |
|            | 140-88-5          | Ethyl acrylate                         | 0.0006 %                 |
|            | 91-20-3           | Naphthalene                            | 0.0001 %                 |
|            | 98-82-8           | Cumene                                 | 0.000 %                  |
| The follow | wing chemical(    | s) are listed under the U.S. Clean Air | r Act Section 112(r) for |
| Accidenta  | al Release Prev   | ention (40 CFR 68.130, Subpart F):     |                          |
|            | 50-00-0           | Formaldehyde                           | 0.0085 %                 |
| The follow | wing chemical(    | s) are listed under the U.S. Clean Air | r Act Section 111 SOCMI  |
| Intermed   | liate or Final VO | DC's (40 CFR 60.489):                  |                          |
|            | 123-86-4          | n-Butyl acetate                        | 29.7322 %                |
|            | 108-88-3          | Toluene                                | 8.7920 %                 |
|            | 78-93-3           | Methyl ethyl ketone                    | 8.143 %                  |
|            | 1330-20-7         | Mixed xylenes                          | 4.8685 %                 |
|            | 100-41-4          | Ethylbenzene                           | 1.4728 %                 |
|            | 110-82-7          | Cyclohexane                            | 0.1453 %                 |
|            | 71-43-2           | Benzene                                | 0.0146 %                 |
|            | 50-00-0           | Formaldehyde                           | 0.0085 %                 |
|            | 140-88-5          | Ethyl acrylate                         | 0.0006 %                 |
|            | 98-82-8           | Cumene                                 | 0.000 %                  |
|            |                   |  |                          |

#### Clean Water Act

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

| 123-86-4          | n-Butyl acetate                    | 29.7322 %                 |
|-------------------|------------------------------------|---------------------------|
| 108-88-3          | Toluene                            | 8.7920 %                  |
| 1330-20-7         | Mixed xylenes                      | 4.8685 %                  |
| 100-41-4          | Ethylbenzene                       | 1.4728 %                  |
| 110-82-7          | Cyclohexane                        | 0.1453 %                  |
| 71-43-2           | Benzene                            | 0.0146 %                  |
| 50-00-0           | Formaldehyde                       | 0.0085 %                  |
| 91-20-3           | Naphthalene                        | 0.0001 %                  |
| 5                 | Chemicals are listed under the U.S | . CleanWater Act, Section |
| 311, Table 117.3: |                                    |                           |
| 123-86-4          | n-Butyl acetate                    | 29.7322 %                 |
| 108-88-3          | Toluene                            | 8.7920 %                  |
| 1330-20-7         | Mixed xylenes                      | 4.8685 %                  |
| 100-41-4          | Ethylbenzene                       | 1.4728 %                  |
| 110-82-7          | Cyclohexane                        | 0.1453 %                  |

| 50-00-0 Form<br>91-20-3 Naph                   |  | ormaldehyde   | 0146 %<br>0085 %<br>0001 %<br>r the U.S. Clean Water    |  |
|--|--|---|---|--|
| 108-8  | 8-3 To   |   | 8.7920 %  |  |
| 100-4<br>US State Regu                         |  | hylbenzene  | 1.4728 %  |  |
| Massachusetts                                  |  | Know  |   |  |
| 1<br>1<br>7<br>1<br>1                          | 23-86-4<br>08-88-3<br>8-93-3<br>330-20-7<br>00-41-4  | n-Butyl acetate<br>Toluene<br>Methyl ethyl ketone<br>Mixed xylenes<br>Ethylbenzene  | 20 - 30 %<br>5 - 10 %<br>5 - 10 %<br>1 - 5 %<br>1 - 5 % |  |
| 5  | 1-43-2<br>0-00-0<br>40-88-5  | Benzene<br>Formaldehyde<br>Ethyl acrylate   | 0 - 0.1 %<br>0 - 0.1 %<br>0 - 0.1 %                     |  |
| 1<br>1<br>7<br>6<br>6<br>6<br>6<br>1<br>1<br>1 | Right To K<br>63-69-9<br>23-86-4<br>08-88-3<br>8-93-3<br>4742-49-0<br>4742-89-8<br>8410-97-9<br>330-20-7<br>00-41-4<br>10-82-7<br>1-43-2 | now<br>Ethyl 3-ethoxypropionate<br>n-Butyl acetate<br>Toluene<br>Methyl ethyl ketone<br>Naphtha (pet), hydrotreated It<br>Solvent naphtha (pet), It aliph.<br>Distillates, pet, It dist hydrotre<br>process, low-boil<br>Mixed xylenes<br>Ethylbenzene<br>Cyclohexane<br>Benzene  | . 0 - 10 %  |  |
| 1<br>1<br>7<br>6<br>6<br>6<br>6                | ght To Knd<br>63-69-9<br>23-86-4<br>08-88-3<br>8-93-3<br>4742-49-0<br>4742-89-8<br>8410-97-9<br>330-20-7<br>00-41-4                      | <ul> <li>Ethyl 3-ethoxypropionate</li> <li>n-Butyl acetate</li> <li>Toluene</li> <li>Methyl ethyl ketone</li> <li>Naphtha (pet), hydrotreated It</li> <li>Solvent naphtha (pet), It aliph.</li> <li>Distillates, pet, It dist hydrotre</li> <li>process, low-boil</li> <li>Mixed xylenes</li> <li>Ethylbenzene</li> </ul> | . 0 - 10 %  |  |
| California Prop                                | o 65   | WARNING! This product contai the State of California to cause   |   |  |

| 100-41-4<br>71-43-2<br>50-00-0 | Ethylbenzene<br>Benzene<br>Formaldehyde   |
|--------------------------------|---|
| 140-88-5                       | Ethyl acrylate  |
| 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<br>71-43-2            | Toluene<br>Benzene  |

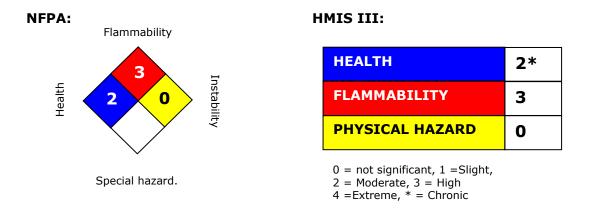
# The components of this product are reported in the following inventories:

| Switzerland. New notified substances and declared preparations  | : | y (positive listing)<br>(The formulation<br>contains substances<br>listed on the Swiss<br>Inventory) |
|---|---|--|
| United States TSCA Inventory                                    | : | y (positive listing)<br>(On TSCA Invento-<br>ry)   |
| Canadian Domestic Substances List (DSL)                         | : | y (positive listing)<br>(All components of<br>this product are on<br>the Canadian DSL.)              |
| Australia Inventory of Chemical Substances (AICS)               | : | y (positive listing)<br>(On the inventory,<br>or in compliance<br>with the inventory)                |
| New Zealand. Inventory of Chemical Substances                   | : | n (Negative listing)<br>(Not in compliance<br>with the inventory)                                    |
| Japan. ENCS - Existing and New Chemical<br>Substances Inventory | : | n (Negative listing)<br>(Not in compliance<br>with the inventory)                                    |
| Japan. ISHL - Inventory of Chemical Substances<br>(METI)        | : | n (Negative listing)<br>(Not in compliance<br>with the inventory)                                    |
| Korea. Korean Existing Chemicals Inventory (KECI)               | : | y (positive listing)<br>(On the inventory,<br>or in compliance<br>with the inventory)                |

| Philippines Inventory of Chemicals and Chemical<br>Substances (PICCS) | : | y (positive listing)<br>(On the inventory,<br>or in compliance<br>with the inventory) |
|---|---|---|
| China. Inventory of Existing Chemical Substances in<br>China (IECSC)  | : | y (positive listing)<br>(On the inventory,<br>or in compliance<br>with the inventory) |

#### **SECTION 16. OTHER INFORMATION**

| VERSION       | 3.0        |
|---------------|------------|
| REVISION DATE | 10/20/2016 |



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.

Legecy MSDS:

R0374099

Material number: 117095,

Key or legend to abbreviations and acronyms used in the safety data sheet

| ACGIH  | American Conference of Cour                                      |                          | Lethal Dose 50%   |
|--------|--|--------------------------|---|
| ACGIH  | American Conference of Gov-                                      | LD50                     | Lethal Dose 50%   |
|        | ernment Industrial Hygienists                                    |                          |   |
| AICS   | Australia, Inventory of Chem-<br>ical Substances                 | LOAEL                    | Lowest Observed Adverse Effect<br>Level   |
| DSL    | Canada, Domestic Substanc-<br>es List                            | NFPA                     | National Fire Protection Agency   |
| NDSL   | Canada, Non-Domestic Sub-<br>stances List                        | NIOSH                    | National Institute for Occupational<br>Safety & 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<br>Scenario Tool                          | OSHA                     | Occupational Safety & Health Admin-<br>istration  |
| EOSCA  | European Oilfield Specialty<br>Chemicals Association             | PEL                      | Permissible Exposure Limit  |
| EINECS | European Inventory of Exist-<br>ing Chemical Substances          | PICCS                    | Philipines Inventory of Commercial<br>Chemical Substances                                 |
| MAK    | Germany Maximum Concen-<br>tration Values                        | PRNT                     | Presumed Not Toxic  |
| GHS    | Globally Harmonized System                                       | RCRA                     | Resource Conservation Recovery Act  |
| >=     | Greater Than or Equal To   | STEL                     | Short-term Exposure Limit   |
| IC50   | Inhibition Concentration 50%                                     | SARA                     | Superfund Amendments and Reau-<br>thorization Act.  |
| IARC   | International Agency for Re-<br>search on Cancer                 | TLV                      | Threshold Limit Value   |
| IECSC  | Inventory of Existing Chemi-<br>cal Substances in China          | TWA                      | Time Weighted Average   |
| ENCS   | Japan, Inventory of Existing<br>and New Chemical Substanc-<br>es | TSCA                     | Toxic Substance Control Act   |
| KECI   | Korea, Existing Chemical In-<br>ventory                          | UVCB                     | Unknown or Variable Compositon,<br>Complex Reaction Products, and<br>Biological Materials |
| <=     | Less Than or Equal To  | WHMIS                    | Workplace Hazardous Materials In-<br>formation System                                     |
| LC50   |  | Lethal Concentration 50% |   |
|        |  |                          |   |