# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830



# SUPER AKTIVATOR

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

Product name **Registration number REACH** Product type REACH : Mixture

: SUPER AKTIVATOR : Not applicable (mixture)

# 1.2. Relevant identified uses of the substance or mixture and uses advised against

## 1.2.1 Relevant identified uses

Adhesive Sealing compound Adhesive: activator

### 1.2.2 Uses advised against

No uses advised against known

## 1.3. Details of the supplier of the safety data sheet

#### Supplier of the safety data sheet

TEC7\* Industrielaan 5B B-2250 Olen +32 14 85 97 37 **i** +32 14 85 97 38 info@tec7.be \*TEC7 is a registered trademark of Novatech International Industrielaan 5B

## Manufacturer of the product

Novatech International N.V. Industrielaan 5B B-2250 Olen **2** +32 14 85 97 37 **₩** +32 14 85 97 38 info@tec7.be

### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch): +32 14 58 45 45 (BIG)

# **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

| Class           | Category   | Hazard statements                                      |
|-----------------|------------|--|
| Aerosol         | category 1 | H222: Extremely flammable aerosol.                     |
| Aerosol         | category 1 | H229: Pressurised container: May burst if heated.      |
| Skin Irrit.     | category 2 | H315: Causes skin irritation.                          |
| STOT SE         | category 3 | H336: May cause drowsiness or dizziness.               |
| Aquatic Chronic | category 2 | H411: Toxic to aquatic life with long lasting effects. |

## 2.2. Label elements



| Signal word  | Danger   |
|--------------|--|
| H-statements |  |
| H222         | Extremely flammable aerosol.                     |
| H229         | Pressurised container: May burst if heated.      |
| H315         | Causes skin irritation.                          |
| H336         | May cause drowsiness or dizziness.               |
| H411         | Toxic to aquatic life with long lasting effects. |
| P-statements |  |

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134-

| P101        | If medical advice is needed, have product container or label at hand.                              |
|-------------|--|
| P102        | Keep out of reach of children.   |
| P210        | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.     |
| P211        | Do not spray on an open flame or other ignition source.  |
| P251        | Do not pierce or burn, even after use.   |
| P280        | Wear protective gloves, protective clothing and eye protection/face protection.                    |
| P405        | Store locked up.   |
| P410 + P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.                       |
| P501        | Dispose of contents/container in accordance with local/regional/national/international regulation. |
|             |  |

### 2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name<br>REACH Registration No              | CAS No<br>EC No         | Conc. (C) | Classification according to CLP  | Note       | Remark      |
|--|-------------------------|-----------|--|------------|-------------|
| naphtha (petroleum), solvent-refined light | 64741-84-0<br>265-086-6 | 30%≤C≤50% | Flam. Liq. 2; H225<br>Asp. Tox. 1; H304<br>Skin Irrit. 2; H315<br>STOT SE 3; H336<br>Aquatic Chronic 2; H411 | (1)(6)(10) | Constituent |
| propane<br>01-2119486944-21                | 74-98-6<br>200-827-9    | 10%≤C≤30% | Flam. Gas 1; H220<br>Press. Gas - Liquefied gas;<br>H280   | (1)(2)(10) | Propellant  |
| butane<br>01-2119474691-32                 | 106-97-8<br>203-448-7   | 10%≤C≤30% | Flam. Gas 1; H220<br>Press. Gas - Liquefied gas;<br>H280   | (1)(2)(10) | Propellant  |
| isobutane<br>01-2119485395-27              | 75-28-5<br>200-857-2    | 1%≤C≤10%  | Flam. Gas 1; H220<br>Press. Gas - Liquefied gas;<br>H280   | (1)(2)(10) | Propellant  |
| N,N-dimethyl-p-toluidine                   | 99-97-8<br>202-805-4    | C<1 %     | Acute Tox. 3; H331<br>Acute Tox. 3; H311<br>Acute Tox. 3; H301<br>STOT RE 2; H373<br>Aquatic Chronic 3; H412 | (1)(10)    | Constituent |

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

# SECTION 4: First aid measures

## 4.1. Description of first aid measures

#### General:

If you feel unwell, seek medical advice.

#### After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

## After skin contact:

Wash immediately with lots of water. Take victim to a doctor if irritation persists.

### After eye contact:

Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

#### After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

## 4.2. Most important symptoms and effects, both acute and delayed

## 4.2.1 Acute symptoms After inhalation: Coughing. Narcosis. After skin contact: Tingling/irritation of the skin. After eye contact: No effects known. After ingestion:

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

No effects known.

4.2.2 Delayed symptoms

No effects known.

#### 4.3. Indication of any immediate medical attention and special treatment needed

If applicable and available it will be listed below.

## **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

- Water spray. Polyvalent foam. BC powder. Carbon dioxide.
- 5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

## 5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours. Pressurised container: May burst if heated.

#### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective goggles. Head/neck protection. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves. Protective goggles. Head/neck protection. Protective clothing.

See heading 8.2

### 6.2. Environmental precautions

Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

## 6.4. Reference to other sections

See heading 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Avoid prolonged and repeated contact with skin. Remove contaminated clothing immediately. Do not discharge the waste into the drain.

#### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Store in a cool area. Fireproof storeroom. Keep out of direct sunlight. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, ignition sources, oxidizing agents, (strong) acids.

- 7.2.3 Suitable packaging material:
- No data available

## 7.2.4 Non suitable packaging material:

#### No data available

#### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

## 8.1.1 Occupational exposure

## a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

| n-Butane     Time-weighted average exposure limit 8 h (VL: Valeur non<br>reglementaire indicative)     800 ppm       Time-weighted average exposure limit 8 h (VL: Valeur non<br>reglementaire indicative)     1900 mg/m²       Sermany     Time-weighted average exposure limit 8 h (VRGS 900)     1000 ppm       Sutan     Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m²       Solutan     Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m²       Propan     Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m²       Propan     Time-weighted average exposure limit 8 h (TRGS 900)     1800 mg/m²       JK     Time-weighted average exposure limit 8 h (TRGS 900)     1800 mg/m²       JK     Time-weighted average exposure limit 8 h (Workplace exposure limit<br>(EH40/2005))     1800 mg/m²       JK     Time-weighted average exposure limit 8 h (Workplace exposure limit<br>(EH40/2005))     1450 mg/m²       JK     Short time value (Workplace exposure limit (EH40/2005))     150 ppm       JK     Short time value (TLV - Adopted Value)     1000 ppm       JK     Short time value (TLV - Adopted Value)     1000 ppm       JK     Short time value (TLV - Adopted Value)     1000 ppm       JK     Short time value (TLV - Adopted Value)     1000 ppm       JK     Short time value (TLV - Adopted Value)     1000 ppm       JK     Short time value (TLV - Adopted Value)   | The NetherlandsButaanButaanButaanButaanButaanButaanButaanButaanButaan  | I                                |
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| réglementaire indicative)           Germany           Butan         Time-weighted average exposure limit 8 h (TRGS 900)         1000 ppm           Sobutan         Time-weighted average exposure limit 8 h (TRGS 900)         2400 mg/m²           Sobutan         Time-weighted average exposure limit 8 h (TRGS 900)         2400 mg/m²           Propan         Time-weighted average exposure limit 8 h (TRGS 900)         1000 ppm           Time-weighted average exposure limit 8 h (TRGS 900)         1800 mg/m²           Butane         Time-weighted average exposure limit 8 h (TRGS 900)         1800 mg/m²           Butane         Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m²           Short time value (Workplace exposure limit 1 (EH40/2005))         750 ppm           Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit 1 (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit 1 (EH40/2005))         1810 mg/m²           Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m²  | réglementaire indicative)         Germany         Butan       Time-weighted average exposure limit & h (TRGS 900)         isobutan       Time-weighted average exposure limit & h (TRGS 900)         Isobutan       Time-weighted average exposure limit & h (TRGS 900)         Propan       Time-weighted average exposure limit & h (TRGS 900)         VM       Time-weighted average exposure limit & h (TRGS 900)         UK       Time-weighted average exposure limit & h (TRGS 900)         UK       Time-weighted average exposure limit & h (Workplace exposure limit & h (Workplace exposus (EH40/2005))         Short time value (Workplace exposure limit & h (Workplace exposus (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit & h (Workplace exposus (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit & h (Workplace exposure limit a h (TRGS 900)       Distical limit values         Milmit values are applicable and available these will be listed below.       USA (TL-ACGIH)         Stapplicale limit values are applicable and available these will be listed below.       N(DSH   |                                  |
| Butan Time-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m <sup>3</sup><br>Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m <sup>3</sup><br>Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m <sup>3</sup><br>Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m <sup>3</sup><br>Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm<br>Ime-weighted average exposure limit 8 h (Workplace exposure limit<br>8 h (Morkplace exposure limit 1 h (TRGS 900) 1000 ppm<br>Short time value (Workplace exposure limit 1 h (Workplace exposure limit<br>8 h (Morkplace exposure limit 1 h (Morkplace exposure limit 1 h (Morkplace exposure limit 1 h (EH40/2005))<br>Short time value (Workplace exposure limit 1 (EH40/2005)) 750 ppm<br>Short time value (Workplace exposure limit (EH40/2005)) 1810 mg/m <sup>3</sup><br>USA (TLV-ACGIH)<br>Butane, all isomers Short time value (TLV - Adopted Value) 1000 ppm<br>b) National biological limit values<br>Fil limit values are applicable and available these will be listed below.<br>USA (BEL-ACGIH)<br>Blood: during or end of shift 1,5 % of<br>hemoglobin inducers Blood: during or end of shift 1,5 % of<br>hemoglobin inducers N,N-Dimethy P-Toluidine (Amines, Aromatic) NIOSH 2002<br>OIM ist (Mineral) NIOSH 2002<br>OIM ist (Mineral)<br>A DRU/PNEC values<br>DNEL/DMEL - Workers<br>Ndimethyl-p-Toluidine (Amines, Aromatic) NIOSH 2026<br>DNEL/DMEL - Morkers<br>Ndimethyl-p-toluidine<br>Effect value (DNE/L/OMEL) Type Value Remark<br>DNEL/DMEL - Morkers<br>DNL-DMEL - General population<br>Ndimethyl-p-toluidine<br>Effect value (DNE/L/OMEL) Type Value Remark<br>Long-term systemic effects inhalation 0.302 mg/m <sup>3</sup><br>Long-term systemic effects oral 0.374 mg/m <sup>3</sup>   | Butan       Time-weighted average exposure limit & h (TRGS 900)         Time-weighted average exposure limit & h (TRGS 900)         Time-weighted average exposure limit & h (TRGS 900)         Propan       Time-weighted average exposure limit & h (TRGS 900)         UK         Butane       Time-weighted average exposure limit & h (TRGS 900)         UK         Butane       Time-weighted average exposure limit & h (TRGS 900)         UK         Butane       Time-weighted average exposure limit & h (Workplace exposu<br>(EH40/2005))         Time-weighted average exposure limit & h (Workplace exposu<br>(EH40/2005))         Short time value (Workplace exposure limit EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005)) <tr< td=""><td>1900 mg/m<sup>3</sup></td></tr<>  | 1900 mg/m <sup>3</sup>           |
| Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m²       isobutan     Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m²       Propan     Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       Time-weighted average exposure limit 8 h (TRGS 900)     1800 mg/m²       Sutane     Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))     600 ppm       (EH40/2005))     Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))     750 ppm       Short time value (Workplace exposure limit (EH40/2005))     750 ppm     1810 mg/m²       Short time value (Workplace exposure limit (EH40/2005))     1800 ppm     1810 mg/m²       Short time value (Workplace exposure limit (EH40/2005))     1800 ppm     1800 ppm       Diatonat biological limit values     Short time value (TLV - Adopted Value)     1000 ppm       Short time value (Workplace exposure limit 1 (EH40/2005))     1800 mg/m²     1800 mg/m²       Short time value (Workplace exposure limit 1 (EH40/2005))     1800 ppm     1800 ppm       Short time value (Workplace exposure limit 2 (EH40/2005))     1800 ppm     1800 ppm       Short time value (Workplace exposure limit 4 (EH40/2005))     1800 ppm     1800 ppm       Short time value (W  | Time-weighted average exposure limit 8 h (TRGS 900)         Isobutan       Time-weighted average exposure limit 8 h (TRGS 900)         Propan       Time-weighted average exposure limit 8 h (TRGS 900)         Time-weighted average exposure limit 8 h (TRGS 900)       Time-weighted average exposure limit 8 h (TRGS 900)         UK       Time-weighted average exposure limit 8 h (Workplace exposure limit 6 H40/2005))         UK       Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         USA (TLV-ACGIH)       Butane, all isomers       Short time value (Workplace exposure limit (EH40/2005))         USA (BEI-ACGIH)       Blood: during or end of shift       1,5 % of hemoglobin         Methemoglobin inducers       Blood: during or end of shift       1,5 % of hemoglobin         12 Sampling methods       If applicable and available these will be listed below.       Sol26         3 Applicable imit values when using the substance or mixture as intended       If limit values are applicable and available these will be listed below.         MDEL/DMEL - Workers       N.N-dimethyl-p-toluidine       R         MN-Dimethyl - p-toluidine       Long-term systemic effects inhalation       1.224 mg/m³ <t< td=""><td></td></t<>   |                                  |
| sobutan     Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       Time-weighted average exposure limit 8 h (TRGS 900)     2400 mg/m <sup>3</sup> Propan     Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       Time-weighted average exposure limit 8 h (TRGS 900)     1000 ppm       W     Time-weighted average exposure limit 8 h (TRGS 900)     1800 mg/m <sup>3</sup> UK     Time-weighted average exposure limit 8 h (Workplace exposure limit 16 H (H GS 900))     1450 mg/m <sup>3</sup> UK     Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m <sup>3</sup> 600 ppm       UK     Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m <sup>3</sup> )     1450 mg/m <sup>3</sup> UK     Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m <sup>3</sup> )     1450 mg/m <sup>3</sup> UK     Short time value (Workplace exposure limit (EH40/2005))     1810 mg/m <sup>3</sup> USA (TLV-ACGH)     Short time value (Workplace exposure limit (EH40/2005))     1810 mg/m <sup>3</sup> Butane, all isomers     Short time value (TLV - Adopted Value)     1000 ppm       b) National biological limit values     Inter-weighted average exposure limit 8 h (Workplace exposure limit 8 h (Warkplace exposu   | isobutan Time-weighted average exposure limit 8 h (TRGS 900)<br>Time-weighted average exposure limit 8 h (TRGS 900)<br>Time-weighted average exposure limit 8 h (TRGS 900)<br>Time-weighted average exposure limit 8 h (TRGS 900)<br>UK<br>Butane Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))<br>Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))<br>Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))<br>Short time value (Workplace exposure limit (EH40/2005))<br>Short time value (Workplace exposure limit (EH40/2005))<br>USA (TLV-ACGIH)<br>Butane, all isomers Short time value (TLV - Adopted Value)<br>b) National biological limit values<br>If limit values are applicable and available these will be listed below.<br>USA (BEI-ACGIH)<br>Methemoglobin inducers Blood: during or end of shift 1,5 % of<br>hemoglobin 2<br>2 Sampling methods<br>1 applicable and available it will be listed below.<br>USA (BEI-ACGIH)<br>Mito Values are applicable and available these will be listed below.<br>USA (BEI-ACGIH)<br>Methemoglobin inducers Blood: during or end of shift 1,5 % of<br>hemoglobin 2<br>2 Sampling methods<br>1 applicable and available it will be listed below.<br>4 DNEL/DMELV<br>MUSH 5026 3<br>3 Applicable limit values when using the substance or mixture as intended<br>If limit values are applicable and available these will be listed below.<br>4 DNEL/DMEL workers<br>N.N-dimethyl-p-toluidine<br>Effect level (DNEL/DMEL) Type Value R<br>DNEL Long-term systemic effects inhalation 1.224 mg/m³ Long-term systemic effects inhalation .327 mg/m³ Long-term systemic effects inhalation .3327 mg/m³ Long-term systemic effects oral .0.774 mg/m³ Long-term systemic effects oral .0. | 1000 ppm                         |
| Time-weighted average exposure limit 8 h (TRGS 900)         2400 mg/m³           Propan         Time-weighted average exposure limit 8 h (TRGS 900)         1000 ppm           Time-weighted average exposure limit 8 h (TRGS 900)         1800 mg/m³           UK         Time-weighted average exposure limit 8 h (TRGS 900)         1800 mg/m³           Butane         Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m³           (EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m³           USA         Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m³           USA (TLV-ACGIH)         Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))           USA (TLV-ACGIH)         Short time value (Workplace exposure limit (EH40/2005))           USA (EL-ACGIH)         Ifmit values           Short time value (TLV - Adopted Value)         1000 ppm           D) National biological limit values         Ifmit values are applicable and available these will be listed below.           UN-Dimethyl-p-toluidine (Amines, Aromatic)         NIOSH         2002           Dil Mist (Minerai)         NIOSH         2002           Dil Mist (Minerai)         NIOSH         5026           A Applicable inmit values when using the substance or mixture as intended         Filmit values are applicable and available these will be listed below.   | Time-weighted average exposure limit 8 h (TRGS 900)         Propan       Time-weighted average exposure limit 8 h (TRGS 900)         Time-weighted average exposure limit 8 h (TRGS 900)       Time-weighted average exposure limit 8 h (TRGS 900)         UK       Time-weighted average exposure limit 8 h (TRGS 900)         Butane       Time-weighted average exposure limit 8 h (Workplace exposus (EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposus (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit 8 h (Workplace exposure limit 4 h (Workplace exposure limit 8 h (Workplace exposure limit 8 h (Workplace exposure limit 8 h (Workplace exposure limit 4 h (Z005))         JSA (TLV-ACGIH)       Short time value (Workplace exposure limit 8 h (TRGS 90)         JSA (TLV-ACGIH)       Short time value (Workplace exposure limit 8 h (Workplace exposure limit 8 h (TRGS 90)         JSA (EL-ACGIH)       Short time value (TLV - Adopted Value)         JSA (BEI-ACGIH)       NUSA         Staphicable and available these will be listed below.   | 2400 mg/m <sup>3</sup>           |
| Propan       Time-weighted average exposure limit 8 h (TRGS 900)       1000 ppm         Time-weighted average exposure limit 8 h (TRGS 900)       1800 mg/m³         UK       Enterweighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))       600 ppm         Itime-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))       750 ppm         Short time value (Workplace exposure limit (EH40/2005))       750 ppm         Short time value (Workplace exposure limit (EH40/2005))       1810 mg/m³         USA (TLV-ACGIH)       Short time value (TLV - Adopted Value)       1000 ppm         Butane, all isomers       Short time value (TLV - Adopted Value)       1000 ppm         DI Astional biological limit values       If imit values are applicable and available these will be listed below.       USA (EL-ACGIH)         Methemoglobin       Blood: during or end of shift       1,5 % of hermoglobin       1000 ppm         Stapilizable in will be listed below.       USA (EL-ACGIH)       2002       34 pplicable inmit values when using the substance or mixture as intended       1005 H       5026         If applicable and available it will be listed below.       A DVL/PKC values       A DVL/PKC values       Remark         DNL dicable limit values when using the substance or mixture as intended       Himit values when using the substance or mixture as intended       Fiffect level (ONEL/DMEL - General population <t< td=""><td>Propan       Time-weighted average exposure limit 8 h (TRGS 900)         Time-weighted average exposure limit 8 h (TRGS 900)         UK         Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br/>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br/>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (TLV - Adopted Value)         <b>b)</b> National biological limit values         Butane, all isomers       Short time value (TLV - Adopted Value)         <b>b)</b> National biological limit values         Blood: during or end of shift       1,5 % of<br/>hermoglobin         2 Sampling methods         if applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oili Mist (Mineral)       NIOSH</td><td>1000 ppm</td></t<>   | Propan       Time-weighted average exposure limit 8 h (TRGS 900)         Time-weighted average exposure limit 8 h (TRGS 900)         UK         Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (TLV - Adopted Value) <b>b)</b> National biological limit values         Butane, all isomers       Short time value (TLV - Adopted Value) <b>b)</b> National biological limit values         Blood: during or end of shift       1,5 % of<br>hermoglobin         2 Sampling methods         if applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oili Mist (Mineral)       NIOSH  | 1000 ppm                         |
| Time-weighted average exposure limit 8 h (TRGS 900)       1800 mg/m <sup>3</sup> UK       Itme-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))       600 ppm         Butane       [(EH40/2005)])       Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))       750 ppm         Short time value (Workplace exposure limit (EH40/2005))       750 ppm       Short time value (Workplace exposure limit (EH40/2005))       1810 mg/m <sup>3</sup> USA (TLV-ACGIH)       Butane, all isomers       Short time value (TLV - Adopted Value)       1000 ppm         b) National biological limit values       [Himt values are applicable and available these will be listed below.       1,5 % of hemoglobin inducers         Wethemoglobin inducers       Blood: during or end of shift       1,5 % of hemoglobin       1,5 % of hemoglobin         Average explicable and available these will be listed below.       NIOSH       2002       0101 Mist (Mineral)         A policable (Amines, Aromatic)       NIOSH       2002       011 Mist (Mineral)       3026         3 Applicable and available these will be listed below.       NIOSH       5026       3400         Nu-Climethyl-p-toluidine       [Effect level (DNEL/DMEL - Workers       NIOSH       0.694 mg/kg bw/day   | Time-weighted average exposure limit 8 h (TRGS 900)         UK         Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       Short time value (Workplace exposure limit (EH40/2005))         USA (TLV-ACGIH)       Butane, all isomers       Short time value (TLV - Adopted Value)         b) National biological limit values       If imit values are applicable and available these will be listed below.       USA (BEI-ACGIH)         Methemoglobin       Blood: during or end of shift       1,5 % of<br>hemoglobin       hemoglobin         2 Sampling methods       If applicable and available it will be listed below.       N.N-Dimethyle -Toluidine (Amines, Aromatic)       NIOSH       2002         OII Mist (Mineral)       NIOSH       5026       3 Applicable Imit values when using the substance or mixture as intended       If limit values are applicable and available these will be listed below.         N.N-Dimethyl p-toluidine       Effect level (DNEL/DMEL)       Type       Value       R         DNEL/DMEL - Storers       Long-term systemic effects dermal       0.694 mg/kg bw/day  | 2400 mg/m <sup>3</sup>           |
| JUK         Butane       Time-weighted average exposure limit 8 h (Workplace exposure limit 1600 ppm (EH40/2005))       600 ppm (EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m³ (EH40/2005))       1450 mg/m³         Short time value (Workplace exposure limit (EH40/2005))       750 ppm (Time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))       1810 mg/m³         Justane, all isomers       Short time value (TLV - Adopted Value)       1000 ppm         D) National biological limit values       Init values are applicable and available these will be listed below.       Justane, all somers       1000 ppm         D) National biological limit values       Blood: during or end of shift       1,5 % of hemoglobin       1000 ppm         2 Sampling methods       f applicable and available these will be listed below.       NIOSH       2002       2002         Dil Mist (Mineral)       NIOSH       5026       3       3       3         Die KL/DMEL - Content Substance or mixture as intended       Filmit values are applicable and available these will be listed below.       Value       Remark         DNEL/DMEL - Workers       NIOSH       5026       3       3       -         N   | UK Butane Time-weighted average exposure limit 8 h (Workplace exposu (EH40/2005)) Time-weighted average exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (TLV - Adopted Value) b) National biological limit values f limit values are applicable and available these will be listed below. USA (BEL-ACGIH) Methemoglobin inducers Blood: during or end of shift 1,5 % of hemoglobin 2 Sampling methods f applicable and available it will be listed below. NN-Dimethyl p-Toluidine (Amines, Aromatic) NIOSH 2002 Dil Mist (Minerai) So26 3 Applicable and available these will be listed below. 4 DNEL/DNEL - Workers NN-Adimethyl-p-toluidine Effect level (DNEL/DMEL) Type Value Kers NN-dimethyl-p-toluidine Effect level (DNEL/DMEL) Long-term systemic effects inhalation N-dimethyl-p-toluidine Effect level (DNEL/DMEL) Long-term systemic effects dermal 0.302 mg/m³ Long-term systemic effects dermal   |                                  |
| Butane     Time-weighted average exposure limit 8 h (Workplace exposure limit 600 ppm<br>(EH40/2005))     600 ppm       Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))     1450 mg/m³       USA (TLV-ACGIH)     Short time value (Workplace exposure limit (EH40/2005))     750 ppm       Butane, all isomers     Short time value (Workplace exposure limit (EH40/2005))     1810 mg/m³       b) National biological limit values     florit time value (TLV - Adopted Value)     1000 ppm       b) National biological limit values     Short time value (TLV - Adopted Value)     1000 ppm       b) National biological limit values     Blood: during or end of shift     1,5 % of hemoglobin       2 Sampling methods     Blood: during or end of shift     1,5 % of hemoglobin       2 Sampling methods     NIOSH     2002       101 Mick (Mineral)     NIOSH     5026       3 Applicable limit values when using the substance or mixture as intended     If limit values are applicable and available these will be listed below.       4 DNEL/DMEL - Workers     NA-dimethyl-p-toluidine     Remark       DNEL/DMEL - Workers     DNEL/DMEL - Workers     NA-dimethyl-p-toluidine       Effect level (DNEL/DMEL)     Type     Value     Remark       DNEL     Long-term systemic effects inhalation     0.694 mg/kg bw/day     DNEL/DMEL       DNEL     Long-term systemic effects dermal     0.694 mg/kg bw/day <t< td=""><td>Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br/>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br/>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (TLV - Adopted Value)         b) National biological limit values         If limit values are applicable and available these will be listed below.         USA (BEL-ACGIH)         Methemoglobin inducers       Blood: during or end of shift         1,5 % of<br/>hemoglobin         2 Sampling methods         1 f applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         OII MISt (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       If         If limit values are applicable and available these will be listed below.       4         0NEL/DMEL - Workers       N.N-dimethyl-p-toluidine       Effect level (ONEL/OMEL)         Type       Value       R         DNEL/DMEL - General population       1.224 mg/m<sup>3</sup>&lt;</td><td>1800 mg/m<sup>3</sup></td></t<>  | Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (TLV - Adopted Value)         b) National biological limit values         If limit values are applicable and available these will be listed below.         USA (BEL-ACGIH)         Methemoglobin inducers       Blood: during or end of shift         1,5 % of<br>hemoglobin         2 Sampling methods         1 f applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         OII MISt (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       If         If limit values are applicable and available these will be listed below.       4         0NEL/DMEL - Workers       N.N-dimethyl-p-toluidine       Effect level (ONEL/OMEL)         Type       Value       R         DNEL/DMEL - General population       1.224 mg/m <sup>3</sup> <   | 1800 mg/m <sup>3</sup>           |
| Butane     Time-weighted average exposure limit 8 h (Workplace exposure limit 600 ppm<br>(EH40/2005))     600 ppm       Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m³<br>(EH40/2005))     1450 mg/m³       Short time value (Workplace exposure limit (EH40/2005))     750 ppm       Short time value (Workplace exposure limit (EH40/2005))     1810 mg/m³       USA (TLV-ACGIH)     1000 ppm       Butane, all isomers     Short time value (Morkplace exposure limit (EH40/2005))     1000 ppm       b) National biological limit values     fl imit values are applicable and available these will be listed below.     USA (BEI-ACGIH)       Wethemoglobin inducers     Blood: during or end of shift     1,5 % of hemoglobin     1000 ppm       2 Sampling methods     f applicable and available these will be listed below.     2002     0100 ppm       2 Sampling methods if applicable and available these will be listed below.     NIOSH     2002     010 Mist (Mineral)       3 Applicable limit values when using the substance or mixture as intended     fi limit values are applicable and available these will be listed below.       4 DNEL/DMEL / Workers     NN-dimethyl-p-toluidine     Remark       DNEL/DMEL / Workers     Long-term systemic effects inhalation     1.224 mg/m³       NN-dimethyl-p-toluidine     Long-term systemic effects dermal     0.694 mg/kg bw/day       DNEL/DMEL - General population     N.dimethyl-p-toluidine     Remark   | Butane       Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (TLV - Adopted Value)         b) National biological limit values         fl mint values are applicable and available these will be listed below.         USA (BEL-ACGIH)         Methemoglobin inducers         Blood: during or end of shift       1,5 % of<br>hemoglobin         2 Sampling methods         f applicable and available it will be listed below.         N,N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         OII Mist (Minerai)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       If         If mint values are applicable and available these will be listed below.       4         DNEL/DMEL - Workers       N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type         Value       R       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> EDN  |                                  |
| Time-weighted average exposure limit 8 h (Workplace exposure limit [EH40/2005))         1450 mg/m³           [EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         750 ppm           Butane, all isomers         Short time value (Workplace exposure limit (EH40/2005))         1810 mg/m³           b) National biological limit values         Intervalue (TLV - Adopted Value)         1000 ppm           b) National biological limit values         Short time value (TLV - Adopted Value)         1000 ppm           b) National biological limit values         Wetheronglobin inducers         Blood: during or end of shift         1,5 % of hemoglobin           Wetheronglobin inducers         Blood: during or end of shift         1,5 % of hemoglobin         NOSH           2 Sampling methods         If applicable and available it will be listed below.         NIOSH         2002           Oil Mist (Mineral)         NIOSH         2002         Oil Mist (Mineral)         NIOSH           3 Applicable limit values when using the substance or mixture as intended         If limit values are applicable and available these will be listed below.         4           4 DNEL/DMEL - Workers         Effect level (DNEL/DMEL)         Type         Value         Remark           DNEL/DMEL - General population         N.2dimethyl-p-toluidine   | Time-weighted average exposure limit 8 h (Workplace exposu<br>(EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         Short time value (Workplace exposure limit (EH40/2005))         USA (TLV-ACGIH)         Butane, all isomers       Short time value (TLV - Adopted Value)         b) National biological limit values         f limit values are applicable and available these will be listed below.         USA (BEI-ACGIH)         Methemoglobin inducers       Blood: during or end of shift         1,5 % of<br>(Methemoglobin)       1,5 % of<br>hemoglobin         2 Sampling methods       If applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       S026       3 Applicable limit values when using the substance or mixture as intended         If imit values are applicable and available these will be listed below.       4 DNEL/PMEC valueS         DNEL/DMEL - Workers       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> N.N-dimethyl-p-toluidine       Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.Net effect soral       0.327 mg/kg bw/day         N.N-dimethyl-p-toluidine       Iong-term systemic effects dermal       0.347 mg/kg bw/day   | ure limit 600 ppm                |
| Short time value (Workplace exposure limit (EH40/2005))       1810 mg/m³         USA (TLV-ACGIH)       I000 ppm         Butane, all isomers       Short time value (TLV - Adopted Value)       1000 ppm         b) National biological limit values       Intervalue (TLV - Adopted Value)       1000 ppm         b) National biological limit values       Intervalue (TLV - Adopted Value)       1000 ppm         b) National biological limit values       Intervalue (TLV - Adopted Value)       1000 ppm         b) National biological limit values       Intervalue (TLV - Adopted Value)       1000 ppm         b) Mational biological limit values are applicable and available these will be listed below.       Intervalue (TLV - Adopted Value)       Intervalue (TLV - Adopted Value)         2 Sampling methods       If applicable and available it will be listed below.       Intervalues (TLV - Adopted Value)       Intervalue (TLV - Adopted Value  | Short time value (Workplace exposure limit (EH40/2005))         USA (TLV-ACGIH)         Butane, all isomers         Short time value (TLV - Adopted Value)         b) National biological limit values         Image: Short time value (TLV - Adopted Value)         b) National biological limit values         Image: Short time value (TLV - Adopted Value)         b) National biological limit values         Image: Short time value (TLV - Adopted Value)         b) National biological limit values         Image: Short time value (TLV - Adopted Value)         b) National biological limit values         Image: Short time value (TLV - Adopted Value)         Dimethods         Image: Short time value (TLV - Adopted Value)         Methoms         Short time value (TLV - Adopted Value)         Methoms         Short time value (TLV - Adopted Value)         Methoms         Short time value (TLV - Adopted Value)         Image: Short time value (TLV - Adopted Value)         Image: Short time value (TLV - Adopted Value)         Image: Short time value (TLV - Adopted Value)  | ure limit 1450 mg/m <sup>3</sup> |
| USA (TLV-ACGIH) Butane, all isomers Short time value (TLV - Adopted Value) 1000 ppm  | USA (TLV-ACGIH) Butane, all isomers Short time value (TLV - Adopted Value) b) National biological limit values fi limit values are applicable and available these will be listed below. USA (BEI-ACGIH) Methemoglobin inducers (Methemoglobin) Blood: during or end of shift 1,5 % of hemoglobin 2 Sampling methods If applicable and available it will be listed below. N,N-Dimethyl p-Toluidine (Amines, Aromatic) NIOSH 2002 Oil Mist (Mineral) 3 Applicable limit values when using the substance or mixture as intended If limit values are applicable and available these will be listed below. 4 DNEL/PNEC values DNEL/DMEL - Workers N,N-dimethyl-p-toluidine Effect level (DNEL/DMEL) DNEL Long-term systemic effects dermal DNL-LONEL/DMEL) DNEL Long-term systemic effects oral 0.302 mg/m <sup>3</sup> Long-term systemic effects oral 0.3174 mg/m <sup>3</sup>  | 750 ppm                          |
| Butane, all isomers       Short time value (TLV - Adopted Value)       1000 ppm         b) National biological limit values       Intervalues  | Butane, all isomers       Short time value (TLV - Adopted Value)         b) National biological limit values       If limit values are applicable and available these will be listed below.         USA (BEI-ACGIH)       Blood: during or end of shift       1,5 % of hemoglobin         Methemoglobin)       Blood: during or end of shift       1,5 % of hemoglobin         2 Sampling methods       If applicable and available it will be listed below.         N,N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       If limit values are applicable and available these will be listed below.         M.N-Dimethyl p-Toluidine       Type       Value       R         DNEL/DMEL - Workers       N.N-dimethyl-p-toluidine       I.224 mg/m³       Long-term systemic effects inhalation       1.224 mg/m³         DNEL/DMEL - General population       N.A-dimethyl-p-toluidine       C694 mg/kg bw/day       D         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Long-term systemic effects dermal       0.302 mg/m³         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       Long-term systemic effects dermal       0.347 mg/kg bw/day  | 1810 mg/m³                       |
| USA (BEI-ACGIH)         Methemoglobin inducers<br>(Methemoglobin)       Blood: during or end of shift       1,5 % of<br>hemoglobin         2 Sampling methods         If applicable and available it will be listed below.         NN-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH         2002         Oil Mist (Mineral)       NIOSH         3 Applicable limit values when using the substance or mixture as intended         If imit values are applicable and available these will be listed below.         4 DNEL/PNEC values         DNEL/DMEL - Workers         N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type         Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> DNEL/DMEL - General population       0.694 mg/kg bw/day         N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)         Effect level (DNEL/DMEL)       Type         DNEL       Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL       Long-term systemic effects inhalation       0.302 mg/m <sup>3</sup> DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day         DNEL       Long-term systemic effects dermal       0.417 mg/m <sup>3</sup>  | USA (BEI-ACGIH)         Methemoglobin inducers       Blood: during or end of shift       1,5 % of hemoglobin         (Methemoglobin)       hemoglobin       hemoglobin         2 Sampling methods       If applicable and available it will be listed below.       NIOSH       2002         NN-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       filmit values are applicable and available these will be listed below.         4 DNEL/DNEL - Workers       N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       1.224 mg/m³       Lo694 mg/kg bw/day       D         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Effect level (DNEL/DMEL)       Type       Value       R       0.694 mg/kg bw/day       D         DNEL       General population       N.N-dimethyl-p-toluidine       Iong-term systemic effects dermal       0.302 mg/m³       D         DNEL       Long-term systemic effects oral       0.347 mg/kg bw/day       Iong-term systemic effects oral       0.174 mg/m³       Iong-term systemic eff  | 1000 ppm                         |
| (Methemoglobin)       hemoglobin         2 Sampling methods         If applicable and available it will be listed below.         N.N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       5026         If limit values are applicable and available these will be listed below.       4         4 DNEL/PNEC values       4         DNEL/DMEL - Workers   | (Methemoglobin)       hemoglobin         2 Sampling methods       If applicable and available it will be listed below.         N,N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026         3 Applicable limit values when using the substance or mixture as intended       5026         If limit values are applicable and available these will be listed below.       4         4 DNEL/PNEC values       DNEL/DMEL - Workers         N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type         Value       R         DNEL       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> DNEL/DMEL - General population       N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       R         DNEL/DMEL - General population       0.694 mg/kg bw/day       D         N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.302 mg/m <sup>3</sup> Long-term systemic effects dermal       0.302 mg/m <sup>3</sup> Long-term systemic effects dermal       0.347 mg/kg bw/day       Long-term systemic effects oral       0.174 mg/m <sup>3</sup> Image of the term systemic effects oral       0.174 mg/m <sup>3</sup> Image of terms systemic effects oral <t< td=""><td></td></t<>  |                                  |
| If applicable and available it will be listed below.          NN-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026 <b>3 Applicable limit values when using the substance or mixture as intended</b> 5026         If limit values are applicable and available these will be listed below. <b>4 DNEL/PNEC values DNEL/DNEL - Workers Value Remark</b> NN-dimethyl-p-toluidine <b>Value Remark</b> DNEL       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> 1.224 mg/m <sup>3</sup> DNEL/DMEL - General population       Long-term systemic effects dermal       0.694 mg/kg bw/day       0.694 mg/kg bw/day         NN-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       General population       0.302 mg/m <sup>3</sup> 1.003-term systemic effects dermal       0.302 mg/m <sup>3</sup> DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       1.003-term systemic effects oral       0.347 mg/kg bw/day  | If applicable and available it will be listed below.          N,N-Dimethyl p-Toluidine (Amines, Aromatic)       NIOSH       2002         Oil Mist (Mineral)       NIOSH       5026 <b>3 Applicable limit values when using the substance or mixture as intended</b> If limit values are applicable and available these will be listed below. <b>4 DNEL/PNEC values DNEL/DMEL - Workers</b> N.N-dimethyl-p-toluidine <b>Yalue Effect level (DNEL/DMEL) Type</b> Value       R         DNEL       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> Long-term systemic effects dermal       0.694 mg/kg bw/day <b>DNEL/DMEL - General population</b> N.N-dimethyl-p-toluidine <b>Type Value R</b> DNEL       Long-term systemic effects inhalation       1.224 mg/m <sup>3</sup> Image: State of the systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine <b>Value R R</b> DNEL       Long-term systemic effects inhalation       0.302 mg/m <sup>3</sup> Image: State of the systemic effects dermal       0.347 mg/kg bw/day         DNEL       Long-term systemic effects oral       0.174 mg/m <sup>3</sup> Image: State of the systemic effects oral       0.174 mg/m <sup>3</sup>  |                                  |
| N.N-Dimethyl p-Toluidine (Amines, Aromatic) NIOSH 2002<br>Oil Mist (Mineral) 5026<br><b>3 Applicable limit values when using the substance or mixture as intended</b><br>If limit values are applicable and available these will be listed below.<br><b>4 DNEL/PNEC values</b><br><b>DNEL/DMEL - Workers</b><br>N.N-dimethyl-p-toluidine<br><b>Effect level (DNEL/DMEL) Type Value Remark</b><br>DNEL<br>DNEL Long-term systemic effects inhalation 1.224 mg/m <sup>3</sup><br>Long-term systemic effects dermal 0.694 mg/kg bw/day<br><b>DNEL/DMEL - General population</b><br>N.N-dimethyl-p-toluidine<br><b>Effect level (DNEL/DMEL) Type Value Remark</b><br>DNEL <u>Long-term systemic effects inhalation 0.302 mg/m<sup>3</sup><br/>Long-term systemic effects dermal 0.347 mg/kg bw/day</u><br>DNEL <u>Long-term systemic effects oral</u> 0.174 mg/m <sup>3</sup>  | N,N-Dimethyl p-Toluidine (Amines, Aromatic)     NIOSH     2002       Oil Mist (Mineral)     NIOSH     5026 <b>3 Applicable limit values when using the substance or mixture as intended</b> If limit values are applicable and available these will be listed below. <b>4 DNEL/PNEC values DNEL/DMEL - Workers</b> N.N-dimethyl-p-toluidine <b>Ype</b> Value <b>R</b> DNEL     Long-term systemic effects inhalation     1.224 mg/m <sup>3</sup> DNEL/DMEL - General population     N.N-dimethyl-p-toluidine     0.694 mg/kg bw/day <b>DNEL/DMEL - Ivel (DNEL/DMEL) Type Value R</b> DNEL     Long-term systemic effects dermal     0.694 mg/kg bw/day <b>DNEL/DMEL - General population</b> N.N-dimethyl-p-toluidine     Long-term systemic effects inhalation     0.302 mg/m <sup>3</sup> <b>R</b> DNEL     Long-term systemic effects dermal     0.347 mg/kg bw/day <b>R</b>  |                                  |
| Oil Mist (Mineral)     NIOSH     5026       3 Applicable limit values when using the substance or mixture as intended<br>If limit values are applicable and available these will be listed below.     4       4 DNEL/PNEC values<br>DNEL/DMEL - Workers<br>N.N-dimethyl-p-toluidine     Value     Remark       Effect level (DNEL/DMEL)     Type     Value     Remark       DNEL     Long-term systemic effects inhalation     1.224 mg/m <sup>3</sup>   | Oil Mist (Mineral)     NIOSH     5026       3 Applicable limit values when using the substance or mixture as intended     If limit values are applicable and available these will be listed below.       4 DNEL/PNEC values     DNEL/DMEL - Workers       N.N-dimethyl-p-toluidine     Effect level (DNEL/DMEL)       Type     Value       DNEL     Long-term systemic effects inhalation       1.224 mg/m³     Long-term systemic effects dermal       0.694 mg/kg bw/day     DNEL/DMEL - General population       N.N-dimethyl-p-toluidine     Long-term systemic effects inhalation       Effect level (DNEL/DMEL)     Type       DNEL     Long-term systemic effects dermal       0.694 mg/kg bw/day     DNEL       DNEL     Long-term systemic effects inhalation       0.302 mg/m³     Long-term systemic effects dermal       DNEL     Long-term systemic effects dermal       0.302 mg/m³     Long-term systemic effects dermal       0.347 mg/kg bw/day     Long-term systemic effects oral   | 7                                |
| 3 Applicable limit values when using the substance or mixture as intended         If limit values are applicable and available these will be listed below.         4 DNEL/PNEC values         DNEL/DMEL - Workers         N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type         Value       Remark         DNEL       Long-term systemic effects inhalation       1.224 mg/m³         DNEL/DMEL - General population       Long-term systemic effects dermal       0.694 mg/kg bw/day         N.N-dimethyl-p-toluidine       Effect level (DNEL/DMEL)       Type         Value       Remark       0.694 mg/kg bw/day         DNEL       Long-term systemic effects inhalation       0.302 mg/m³         DNEL       Long-term systemic effects dermal       0.302 mg/m³         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day         Long-term systemic effects oral       0.174 mg/m³       0.174 mg/m³  | 3 Applicable limit values when using the substance or mixture as intended         If limit values are applicable and available these will be listed below.         4 DNEL/PNEC values         DNEL/DMEL - Workers         N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type         Value       R         DNEL       Long-term systemic effects inhalation       1.224 mg/m³         DNEL/DMEL - General population       Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.694 mg/kg bw/day       D         DNEL       Disp-term systemic effects inhalation       0.302 mg/m³       R         DNEL       Long-term systemic effects dermal       0.302 mg/m³       R         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       Long-term systemic effects oral       0.174 mg/m³  | -                                |
| If limit values are applicable and available these will be listed below.          4 DNEL/PNEC values         DNEL/DMEL - Workers         Ndimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       Long-term systemic effects inhalation       1.224 mg/m³       1.224 mg/m³         DNEL       Long-term systemic effects dermal       0.694 mg/kg bw/day       1.224 mg/m³         DNEL/DMEL - General population         N.N-dimethyl-p-toluidine       Value       Remark         Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Image: Colored mark         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       1.244 mg/m³         DNEL       Long-term systemic effects oral       0.347 mg/kg bw/day       1.244 mg/m³  | If limit values are applicable and available these will be listed below.          4 DNEL/PNEC values         DNEL/DMEL - Workers         N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       1.224 mg/m³       Intervention         DNEL       Long-term systemic effects dermal       0.694 mg/kg bw/day       Intervention         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine       Value       R         Effect level (DNEL/DMEL)       Type       Value       R         DNL       Long-term systemic effects inhalation       0.302 mg/m³       Intervention         DNEL       Long-term systemic effects dermal       0.302 mg/m³       Intervention         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       Intervention         Underterm systemic effects oral       0.174 mg/m³       Intervention       Intervention   |                                  |
| DNEL       Long-term systemic effects inhalation       1.224 mg/m³         DNEL/DMEL - General population       N.n-dimethyl-p-toluidine       0.694 mg/kg bw/day         Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       1.224 mg/kg bw/day         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       1.224 mg/kg bw/day         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       1.224 mg/m³         Long-term systemic effects oral       0.174 mg/m³       1.224 mg/m³       1.224 mg/m³   | DNEL       Long-term systemic effects inhalation       1.224 mg/m³         DNEL/DMEL - General population       Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine       Value       R         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Long-term systemic effects dermal         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       Long-term systemic effects oral       0.174 mg/m³  |                                  |
| Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Image: Cong-term systemic effects dermal         DNEL       Long-term systemic effects dermal       0.347 mg/kg bw/day       Image: Cong-term systemic effects oral         DNEL       Long-term systemic effects oral       0.174 mg/m³       Image: Cong-term systemic effects oral   | Long-term systemic effects dermal       0.694 mg/kg bw/day         DNEL/DMEL - General population       N.N-dimethyl-p-toluidine         N.N-dimethyl-p-toluidine       Value       R         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Long-term systemic effects dermal       0.347 mg/kg bw/day         Long-term systemic effects oral       0.174 mg/m³       D.174 mg/m³       D.174 mg/m³  | Remark                           |
| DNEL/DMEL - General population         N.N-dimethyl-p-toluidine       Value       Remark         Effect level (DNEL/DMEL)       Type       Value       Remark         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Long-term systemic effects dermal         Long-term systemic effects oral       0.347 mg/kg bw/day       Long-term systemic effects oral       0.174 mg/m³  | DNEL/DMEL - General population         N.N-dimethyl-p-toluidine         Effect level (DNEL/DMEL)       Type       Value       R         DNEL       Long-term systemic effects inhalation       0.302 mg/m³       Long-term systemic effects dermal       0.347 mg/kg bw/day         Long-term systemic effects oral       0.174 mg/m³       Long-term systemic effects oral       0.174 mg/m³  |                                  |
| N.N-dimethyl-p-toluidine     Type     Value     Remark       Effect level (DNEL/DMEL)     Type     Value     Remark       DNEL     Long-term systemic effects inhalation     0.302 mg/m³     Long-term systemic effects dermal       Long-term systemic effects oral     0.347 mg/kg bw/day     Long-term systemic effects oral  | N.N-dimethyl-p-toluidine         Type         Value         R           DNEL         Long-term systemic effects inhalation         0.302 mg/m³         Long-term systemic effects dermal         0.347 mg/kg bw/day           Long-term systemic effects oral         0.174 mg/m³         Long-term systemic effects oral         0.174 mg/m³  |                                  |
| Effect level (DNEL/DMEL)         Type         Value         Remark           DNEL         Long-term systemic effects inhalation         0.302 mg/m³            Long-term systemic effects dermal         0.347 mg/kg bw/day            Long-term systemic effects oral         0.174 mg/m³   | Effect level (DNEL/DMEL)         Type         Value         R           DNEL         Long-term systemic effects inhalation         0.302 mg/m³         Long-term systemic effects dermal         0.347 mg/kg bw/day           Long-term systemic effects oral         0.174 mg/m³         Long-term systemic effects oral  |                                  |
| DNEL Long-term systemic effects inhalation 0.302 mg/m <sup>3</sup><br>Long-term systemic effects dermal 0.347 mg/kg bw/day<br>Long-term systemic effects oral 0.174 mg/m <sup>3</sup>  | DNEL Long-term systemic effects inhalation 0.302 mg/m <sup>3</sup><br>Long-term systemic effects dermal 0.347 mg/kg bw/day<br>Long-term systemic effects oral 0.174 mg/m <sup>3</sup>  | Pomark                           |
| Long-term systemic effects dermal     0.347 mg/kg bw/day       Long-term systemic effects oral     0.174 mg/m <sup>3</sup>   | Long-term systemic effects dermal0.347 mg/kg bw/dayLong-term systemic effects oral0.174 mg/m³  | Nerfidik                         |
| Long-term systemic effects oral 0.174 mg/m <sup>3</sup>  | Long-term systemic effects oral 0.174 mg/m <sup>3</sup>  |                                  |
|  |  |                                  |
|  |  |                                  |
|  | —  |                                  |

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

# N,N-dimethyl-p-toluidine

| <u>v,iv-aimethyi-p-tolulaine</u> |                          |        |
|----------------------------------|--------------------------|--------|
| Compartments                     | Value                    | Remark |
| Fresh water                      | 0.014 mg/l               |        |
| Marine water                     | 0.001 mg/l               |        |
| Aqua (intermittent releases)     | 0.137 mg/l               |        |
| STP                              | 1.36 mg/l                |        |
| Fresh water sediment             | 48.245 mg/kg sediment dw |        |
| Marine water sediment            | 48.245 mg/kg sediment dw |        |
| Soil                             | 20.365 mg/kg soil dw     |        |

## 8.1.5 Control banding

If applicable and available it will be listed below.

#### 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

#### 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Avoid prolonged and repeated contact with skin. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

Gloves.

c) Eye protection:

Protective goggles.

d) Skin protection:

Head/neck protection. Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

| Physical form             | Aerosol  |
|---------------------------|--|
| Odour                     | Characteristic odour                                   |
| Odour threshold           | No data available                                      |
| Colour                    | Colourless   |
| Particle size             | No data available                                      |
| Explosion limits          | No data available                                      |
| Flammability              | Extremely flammable aerosol.                           |
| Log Kow                   | Not applicable (mixture)                               |
| Dynamic viscosity         | No data available                                      |
| Kinematic viscosity       | No data available                                      |
| Melting point             | No data available                                      |
| Boiling point             | No data available                                      |
| Flash point               | -40 °C   |
| Evaporation rate          | No data available                                      |
| Relative vapour density   | No data available                                      |
| Vapour pressure           | No data available                                      |
| Solubility                | water ; insoluble                                      |
| Relative density          | No data available                                      |
| Decomposition temperature | No data available                                      |
| Auto-ignition temperature | No data available                                      |
| Explosive properties      | No chemical group associated with explosive properties |
| Oxidising properties      | No chemical group associated with oxidising properties |
| рН                        | No data available                                      |

## 9.2. Other information

Absolute density

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

## 10.2. Chemical stability

Unstable on exposure to heat.

## 10.3. Possibility of hazardous reactions

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

No data available.

#### 10.4. Conditions to avoid

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

### 10.5. Incompatible materials

Oxidizing agents, (strong) acids.

## 10.6. Hazardous decomposition products

Upon combustion: formation of CO, CO2 and small quantities of nitrous vapours.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

11.1.1 Test results

### Acute toxicity

### SUPER AKTIVATOR

No (test)data on the mixture available

N,N-dimethyl-p-toluidine

| Route of exposure | Parameter | Method | Value          | Exposure time | Species | Value              | Remark |
|-------------------|-----------|--------|----------------|---------------|---------|--------------------|--------|
|                   |           |        |                |               |         | determination      |        |
| Oral              | LD50      |        | 980 mg/kg bw   |               | Rat     | Weight of evidence |        |
| Oral              |           |        | category 3     |               |         | Annex VI           |        |
| Dermal            |           |        | category 3     |               |         | Annex VI           |        |
| Dermal            | LD50      |        | < 935 mg/kg bw |               | Rabbit  | Weight of evidence |        |
| Inhalation        | LC50      |        | 1.4 mg/l       | 4 h           | Rat     | Experimental value |        |
| Inhalation        |           |        | category 3     |               |         | Annex VI           |        |

Judgement is based on the relevant ingredients

## **Conclusion**

Not classified for acute toxicity

## **Corrosion/irritation**

## SUPER AKTIVATOR

No (test)data on the mixture available

#### naphtha (petroleum), solvent-refined light

| $\mu \rightarrow \eta \rightarrow \mu$ |                |          |               |                       |         |                    |        |  |  |  |
|--|----------------|----------|---------------|-----------------------|---------|--------------------|--------|--|--|--|
| Route of exposure                      | Result         | Method   | Exposure time | Time point            | Species | Value              | Remark |  |  |  |
|  |                |          |               |                       |         | determination      |        |  |  |  |
| Skin                                   | Irritating     | OECD 404 | 4 h           | 1; 24; 48; 72 hrs; 7; | Rabbit  | Experimental value |        |  |  |  |
|  |                |          |               | 14 days               |         |                    |        |  |  |  |
| N-dimethyl-p-toluidi                   | ne             |          |               | •                     | -       | •                  | •      |  |  |  |
| Route of exposure                      | Result         | Method   | Exposure time | Time point            | Species | Value              | Remark |  |  |  |
|  |                |          |               |                       |         | determination      |        |  |  |  |
| Eye                                    | Not irritating | OECD 405 | 1 h           | 24; 48; 72 hours      | Rabbit  | Experimental value |        |  |  |  |
| Skin                                   | Not irritating | OECD 404 | 4 h           | 24; 48; 72 hours      | Rabbit  | Experimental value |        |  |  |  |

Classification is based on the relevant ingredients

## **Conclusion**

Causes skin irritation.

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

#### Respiratory or skin sensitisation

### SUPER AKTIVATOR

No (test)data on the mixture available

| N,N-dimethyl- | <u>p-toluidine</u> |
|---------------|--------------------|
|---------------|--------------------|

| Route of exposure | Result          | Method | <br>Observation time<br>point | Species       | Value determination | Remark |
|-------------------|-----------------|--------|-------------------------------|---------------|---------------------|--------|
| Skin              | Not sensitizing |        |                               | Rabbit        | QSAR                |        |
|                   |                 |        |                               | (male/female) |                     |        |

Judgement is based on the relevant ingredients

## **Conclusion**

Not classified as sensitizing for skin

### Specific target organ toxicity

#### SUPER AKTIVATOR

No (test)data on the mixture available

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

|  |  |                        |                   |            |                           |                           | <u> </u>               |                |                             |                       |
|--|--|------------------------|-------------------|------------|---------------------------|---------------------------|------------------------|----------------|-----------------------------|-----------------------|
| naphtha (petroleum), so Route of exposure  |  | d light<br>Method      | Value             | Org        | gan                       | Effect                    | Exposur                | re time S      | pecies                      | Value                 |
| Inhalation   |  |                        |                   |            |                           | Drowsiness,               |                        | R              | Rat                         | determinatio          |
| N,N-dimethyl-p-toluidir  |  |                        |                   | sys        | tem                       | dizziness                 |                        |                |                             | value                 |
| Route of exposure  |  | Method                 | Value             | Org        | van                       | Effect                    | Exposur                | re time S      | species                     | Value                 |
|  |  |                        |                   |            | ,u                        |                           |                        |                |                             | determinatio          |
| Oral (stomach<br>tube)   | LOAEL  |                        | 6 mg/kg<br>bw/day |            | male<br>productive<br>gan | Impairment/c<br>eneration | deg 105 wee<br>days/we |                | Rat (female)                | Experimental<br>value |
| Oral (stomach<br>tube)   | LOAEL  | +                      | 62.5 mg/          |            | rious organs              | Weight chang              | ges 14 week<br>days/we | •              | Rat<br>male/female)         | Experimental value    |
| Dermal   |  | 1                      | STOT RE           | cat.2      |                           |                           |                        |                | indic/ icinaic <sub>j</sub> | Annex VI              |
| Dermal   |  | 1                      |                   |            |                           | <u> </u>                  |                        |                |                             | Data waiving          |
| Inhalation   | LOEL   | 1                      | 67.28 mg          | g/kg       |                           | Body weight               |                        |                | Rat                         | QSAR                  |
| (vapours)<br>Classification is based o   |  |                        | bw/day            |            |                           | reduction                 |                        | (1             | male/female)                |                       |
| Conclusion<br>May cause drowsiness of<br>Not classified for subch<br>agenicity (in vitro)  |  |                        |                   |            |                           |                           |                        |                |                             |                       |
| <u>PER AKTIVATOR</u><br>No (test)data on the mi<br><u>N,N-dimethyl-p-toluidir</u>  |  | le                     |                   |            |                           |                           |                        |                |                             |                       |
| Result   |  | lethod                 |                   |            | t substrate               |                           | Effect                 |                | Value dete                  |                       |
| Negative   | 0  | ECD 471                |                   | Bact       | teria (S.typhi            | murium)                   | L                      |                | Experiment                  | tal value             |
| inogenicity<br>Not classified for mutage<br>inogenicity<br><u>PER AKTIVATOR</u><br>No (test)data on the mi<br>Judgement is based on<br>iconclusion<br>Not classified for carcin<br>oductive toxicity<br><u>PER AKTIVATOR</u><br>No (test)data on the mi<br>N,N-dimethyl-p-toluidir | ixture availab<br>the relevant i<br>logenicity<br>ixture availab | ingredien <sup>1</sup> |                   |            |                           |                           |                        |                |                             |                       |
| N,N-dimethyl-p-toluidir  | Parame   | otor                   | Method            | Value      | Exposu                    | re time Speci             | 05                     | Effect         | Organ                       | Value                 |
|  | ratatite   | ster                   | Wethou            | value      | LAPOSU                    | le time speci             | <b>e</b> 3             | Linect         | Organ                       | determinatio          |
| Effects on fertility   | LOAEL  | (F2)                   |                   | 72.98 mg/k | g                         | Rat                       |                        |                |                             | QSAR                  |
| Judgement is based on<br><u>conclusion</u><br>Not classified for reprofective<br><u>city other effects</u><br><u>PER AKTIVATOR</u><br>No (test)data on the minic effects from short and<br><u>PER AKTIVATOR</u><br>No effects known.   | toxic or devel<br>ixture availab                                 | lopmental              | ts<br>I toxicity  | bw/day     |                           | (IIIale                   | ₂/female)              | L              |                             |                       |
| on for revision: 2; 3.2; 4;  | ; 5; 7; 8; 9; 11   | l; 12; 15              |                   |            |                           |                           |                        | date: 2000-09- |                             |                       |

# SECTION 12: Ecological information

## 12.1. Toxicity

## SUPER AKTIVATOR

No (test)data on the mixture available

|  | Parameter | Method   | Value      | Duration  | Species                             | Test design            | Fresh/salt<br>water | Value determination           |
|--|-----------|----------|------------|-----------|-------------------------------------|------------------------|---------------------|-------------------------------|
| Acute toxicity fishes                      | LL50      | OECD 203 | 10 mg/l    | 96 h      | ,                                   | Semi-static<br>system  | Fresh water         | Experimental value            |
| Acute toxicity crustacea                   | EL50      | OECD 202 | 4.5 mg/l   | 48 h      | Daphnia magna                       | Static system          | Fresh water         | Experimental value            |
| Toxicity algae and other aquatic plants    | EL50      | OECD 201 | 3.1 mg/l   | 96 h      | Pseudokirchnerie<br>Ila subcapitata | Static system          | Fresh water         | Experimental value            |
|  | NOELR     | OECD 201 | 0.5 mg/l   | 72 h      | Pseudokirchnerie<br>Ila subcapitata | Static system          | Fresh water         | Experimental value            |
| Long-term toxicity aquatic<br>crustacea    | NOELR     | OECD 211 | 2.6 mg/l   | 21 day(s) |                                     | Semi-static<br>system  | Fresh water         | Experimental value            |
| N-dimethyl-p-toluidine                     |           |          |            |           |                                     |                        |                     |                               |
|  | Parameter | Method   | Value      | Duration  | Species                             | Test design            | Fresh/salt<br>water | Value determination           |
| Acute toxicity fishes                      | LC50      |          | 46 mg/l    | 96 h      | Pimephales<br>promelas              |                        | Fresh water         | Experimental value;<br>Lethal |
| Acute toxicity crustacea                   | LC50      | ECOSAR   | 15.26 mg/l | 48 h      | Daphnia magna                       |                        |                     | QSAR                          |
| Toxicity algae and other aquatic<br>plants | EC50      |          | 24.3 mg/l  | 72 h      | Pseudokirchnerie<br>Ila subcapitata | Flow-through<br>system | Fresh water         | QSAR                          |
| Long-term toxicity fish                    | LC50      | ECOSAR   | 24.89 mg/l | 14 day(s) |                                     |                        |                     | QSAR                          |
| Long-term toxicity aquatic<br>crustacea    |           |          |            |           |                                     |                        |                     | Data waiving                  |
| Toxicity aquatic micro-<br>organisms       | EC50      |          | 42.86 mg/l | 48 h      | Tetrahymena<br>pyriformis           |                        | Fresh water         | QSAR                          |

Classification is based on the relevant ingredients

## **Conclusion**

Toxic to aquatic life with long lasting effects.

## 12.2. Persistence and degradability

naphtha (petroleum), solvent-refined light

| D           |   |       |           |                     |  |  |
|-------------|---|-------|-----------|---------------------|--|--|
|             | Method                                  | Value | Duration  | Value determination |  |  |
|             | OECD 301F: Manometric Respirometry Test | 77 %  | 28 day(s) | Experimental value  |  |  |
| <u>N,</u> N | I-dimethyl-p-toluidine                  |       |           |                     |  |  |

**Biodegradation water** 

| Method             | Value | Duration  | Value determination |
|--------------------|-------|-----------|---------------------|
| EPA OPPTS 835.3210 | 50 %  | 38 day(s) | Calculated value    |

## **Conclusion**

Contains non readily biodegradable component(s)

## 12.3. Bioaccumulative potential

## SUPER AKTIVATOR

Log Kow

| Method | Remark                   | Value | Temperature | Value determination |
|--------|--------------------------|-------|-------------|---------------------|
|        | Not applicable (mixture) |       |             |                     |

## naphtha (petroleum), solvent-refined light

| L | og Kow |                   |       |             |                     |
|---|--------|-------------------|-------|-------------|---------------------|
|   | Method | Remark            | Value | Temperature | Value determination |
|   |        | No data available |       |             |                     |

N,N-dimethyl-p-toluidine

| BCF fishes       |                |       |          |         |            |                     |
|------------------|----------------|-------|----------|---------|------------|---------------------|
| Parameter        | Method         | Value | Duration | Species |            | Value determination |
| BCF              | EPA OTS 797.15 | 0 33  |          | Pisces  |            | Calculated value    |
| Log Kow          |                |       |          |         |            |                     |
| Method           | Rema           | rk    | Value    | Te      | emperature | Value determination |
| Equivalent to OE | CD 107         |       | 1.729    | 35      | 5 °C       | Experimental value  |

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

#### **Conclusion**

No straightforward conclusion can be drawn based upon the available numerical values

#### 12.4. Mobility in soil

naphtha (petroleum), solvent-refined light

| (I          | og) Koc                |                |       |                     |
|-------------|------------------------|----------------|-------|---------------------|
|             | Parameter              | Method         | Value | Value determination |
|             | log Koc                | PCKOCWIN v1.66 | 2     | Calculated value    |
| <u>N,</u> N | J-dimethyl-p-toluidine |                |       |                     |

#### (log) Koc

| Parameter M | Method            | Value | Value determination |
|-------------|-------------------|-------|---------------------|
| log Koc Si  | SRC PCKOCWIN v2.0 | 2.1   | Calculated value    |

### Conclusion

Contains component(s) with potential for mobility in the soil

#### 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

#### 12.6. Other adverse effects

#### SUPER AKTIVATOR

### Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

## **Ozone-depleting potential (ODP)**

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

N,N-dimethyl-p-toluidine Ground water

Ground water pollutant

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

#### 13.1. Waste treatment methods

## 13.1.1 Provisions relating to waste

#### **European Union**

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

16 05 04\* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

### 13.1.2 Disposal methods

Specific treatment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Should not be landfilled with household waste. Do not discharge into drains or the environment.

## 13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

# SECTION 14: Transport information

## Road (ADR)

| UN number   | 1950                         |  |
|---|------------------------------|--|
| 14.2. UN proper shipping name                     |                              |  |
| Proper shipping name                              | Aerosols                     |  |
| 14.3. Transport hazard class(es)                  |                              |  |
| Hazard identification number                      |                              |  |
| Class   | 2                            |  |
| Classification code                               | 5F                           |  |
| 14.4. Packing group                               |                              |  |
| Packing group                                     |                              |  |
| Labels  | 2.1                          |  |
| 14.5. Environmental hazards                       |                              |  |
| Environmentally hazardous substance mark          | yes                          |  |
| 14.6. Special precautions for user                |                              |  |
| Special provisions                                | 190                          |  |
| Special provisions                                | 327                          |  |
| n for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15 | Publication date: 2000-09-20 |  |
|   | Date of revision: 2017-01-31 |  |

| Special provisions | 344   |
|--------------------|---|
| Special provisions | 625   |
| Limited quantities | Combination packagings: not more than 1 liter per inner packaging for |
|                    | liquids. A package shall not weigh more than 30 kg. (gross mass)      |

## Rail (RID)

| 14.1. UN number                          |  |
|--|--|
| UN number                                | 1950   |
| 14.2. UN proper shipping name            |  |
| Proper shipping name                     | Aerosols   |
| 14.3. Transport hazard class(es)         |  |
| Hazard identification number             | 23   |
| Class                                    | 2  |
| Classification code                      | 5F   |
| 14.4. Packing group                      |  |
| Packing group                            |  |
| Labels                                   | 2.1  |
| 14.5. Environmental hazards              |  |
| Environmentally hazardous substance mark | yes  |
| 4.6. Special precautions for user        |  |
| Special provisions                       | 190  |
| Special provisions                       | 327  |
| Special provisions                       | 344  |
| Special provisions                       | 625  |
| Limited quantities                       | Combination packagings: not more than 1 liter per inner packaging fo<br>liquids. A package shall not weigh more than 30 kg. (gross mass) |

## Inland waterways (ADN)

| 14.1. UN number                          |   |
|--|---|
| UN number                                | 1950  |
| 14.2. UN proper shipping name            |   |
| Proper shipping name                     | Aerosols  |
| 14.3. Transport hazard class(es)         |   |
| Class                                    | 2   |
| Classification code                      | 5F  |
| 14.4. Packing group                      |   |
| Packing group                            |   |
| Labels                                   | 2.1   |
| 14.5. Environmental hazards              |   |
| Environmentally hazardous substance mark | yes   |
| 14.6. Special precautions for user       |   |
| Special provisions                       | 190   |
| Special provisions                       | 327   |
| Special provisions                       | 344   |
| Special provisions                       | 625   |
| Limited quantities                       | Combination packagings: not more than 1 liter per inner packaging for<br>liquids. A package shall not weigh more than 30 kg. (gross mass) |

## Sea (IMDG/IMSBC)

| 14.1. UN number                          |          |
|--|----------|
| UN number                                | 1950     |
| 14.2. UN proper shipping name            |          |
| Proper shipping name                     | Aerosols |
| 14.3. Transport hazard class(es)         |          |
| Class                                    | 2.1      |
| 14.4. Packing group                      |          |
| Packing group                            |          |
| Labels                                   | 2.1      |
| 14.5. Environmental hazards              |          |
| Marine pollutant                         | Р        |
| Environmentally hazardous substance mark | yes      |
| 14.6. Special precautions for user       |          |
| Special provisions                       | 63       |
| Special provisions                       | 190      |
| Special provisions                       | 277      |
| Special provisions                       | 327      |
| Special provisions                       | 344      |
| Special provisions                       | 959      |

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

| Limited quantities   | Combination packagings: not more than 1 liter per inner packaging for<br>liquids. A package shall not weigh more than 30 kg. (gross mass) |
|--|---|
| 1.7. Transport in bulk according to Annex II of Marpol and the IBC C |   |
| Annex II of MARPOL 73/78   | Not applicable  |
| ICAO-TI/IATA-DGR)  |   |
| 1.1. UN number   |   |
| UN number  | 1950  |
| 1.2. UN proper shipping name   |   |
| Proper shipping name   | Aerosols, flammable   |
| 4.3. Transport hazard class(es)                                      |   |
| Class  | 2.1   |
| 4.4. Packing group   |   |
| Packing group  |   |
| Labels   | 2.1   |
| 1.5. Environmental hazards   |   |
| Environmentally hazardous substance mark                             | yes   |
| 4.6. Special precautions for user                                    |   |
| Special provisions   | A145  |
| Special provisions   | A167  |
| Special provisions   | A802  |
| limited quantities: maximum net quantity per packaging               | 30 kg G   |

# SECTION 15: Regulatory information

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

### European legislation:

VOC content Directive 2010/75/EU

| VOC content  | Remark |
|--------------|--------|
| 51 % - 100 % |        |

**REACH Annex XVII - Restriction** 

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

| and use of certain dangerou  | substances, mixtures and articles.   |  |
|--|--|--|
|  | Designation of the substance, of the group of substances or of the mixture   | Conditions of restriction  |
| naphtha (petroleum), solvent-refined light<br>N,N-dimethyl-p-toluidine | Substances of of the finiture<br>Liquid substances or mixtures which are<br>regarded as dangerous in accordance with<br>Directive 1999/45/EC or are fulfilling the<br>criteria for any of the following hazard classes<br>or categories set out in Annex I to Regulation<br>(EC) No 1272/2008:<br>(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8<br>types A and B, 2.9, 2.10, 2.12, 2.13 categories 1<br>and 2, 2.14 categories 1 and 2, 2.15 types A to<br>F;<br>(b) hazard classes 3.1 to 3.6, 3.7 adverse<br>effects on sexual function and fertility or on<br>development, 3.8 effects other than narcotic<br>effects, 3.9 and 3.10;<br>(c) hazard class 5.1. | <ol> <li>Shall not be used in:         <ul> <li>ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,</li> <li>tricks and jokes,</li> <li>games for one or more participants, or any article intended to be used as such, even will ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market.3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:</li></ul></li></ol> |
| naphtha (petroleum), solvent-refined light                             | Substances classified as flammable gases<br>category 1 or 2, flammable liquids categories 1,<br>2 or 3, flammable solids category 1 or 2,<br>substances and mixtures which, in contact with<br>water, emit flammable gases, category 1, 2 or<br>3, pyrophoric liquids category 1 or  | <ol> <li>Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:         <ul> <li>metallic glitter intended mainly for decoration,</li> <li>artificial snow and frost,</li> <li>"whoopee" cushions,</li> </ul> </li> </ol>  |
| son for revision: 2; 3.2; 4; 5; 7; 8; 9; 11;                           | 12; 15   | Publication date: 2000-09-20   |
|  |  | Date of revision: 2017-01-31   |

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Product number: 32188

| pyrophoric solid | s category 1, regardless of   | <ul> <li>— silly string aerosols,</li> </ul>   |
|------------------|-------------------------------|--|
| whether they ap  | pear in Part 3 of Annex VI to | — imitation excrement,   |
| that Regulation  | or not.                       | - horns for parties,   |
|                  |                               | <ul> <li>decorative flakes and foams,</li> </ul>   |
|                  |                               | — artificial cobwebs,  |
|                  |                               | - stink bombs.2. Without prejudice to the application of other Community provisions on the       |
|                  |                               | classification, packaging and labelling of substances, suppliers shall ensure before the placing |
|                  |                               | on the market that the packaging of aerosol dispensers referred to above is marked visibly,      |
|                  |                               | legibly and indelibly with:  |
|                  |                               | "For professional users only".3. By way of derogation, paragraphs 1 and 2 shall not apply to     |
|                  |                               | the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The        |
|                  |                               | aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless    |
|                  |                               | they conform to the requirements indicated.  |

### National legislation Belgium

SUPER AKTIVATOR No data available

NO Gata available

## National legislation The Netherlands

| <u>S</u> | SUPER AKTIVATOR           |   |  |
|----------|---------------------------|---|--|
|          | Waste identification (the | LWCA (the Netherlands): KGA category 06 |  |
|          | Netherlands)              |   |  |
|          | Waterbezwaarlijkheid      | A (2)                                   |  |
|          |                           |   |  |

### **National legislation France**

SUPER AKTIVATOR

No data available

## National legislation Germany SUPER AKTIVATOR

| 21                       | SUPER AKTIVATOR |   |  |
|--------------------------|-----------------|---|--|
|                          | WGK             | 2; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender |  |
|                          |                 | Stoffe (VwVwS) of 27 July 2005 (Anhang 4)   |  |
| N.N-dimethyl-p-toluidine |                 |   |  |
|                          | TA-Luft         | 5.2.5;1   |  |

#### National legislation United Kingdom

SUPER AKTIVATOR

No data available

## Other relevant data

SUPER AKTIVATOR No data available

### 15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

## **SECTION 16: Other information**

Full text of any H-statements referred to under headings 2 and 3:H220Extremely flammable gas.H222Extremely flammable aerosol.H225Highly flammable liquid and vapour.H229Pressurised container: May burst if heated.

- H280 Contains gas under pressure; may explode if heated.
- H301 Toxic if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure if swallowed.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

| (*)       | INTERNAL CLASSIFICATION BY BIG  |  |
|-----------|---|--|
| CLP (EU-G | 5) Classification, labelling and packaging (Globally Harmonised System in Europe) |  |
| DMEL      | Derived Minimal Effect Level  |  |
| DNEL      | Derived No Effect Level   |  |
| EC50      | Effect Concentration 50 %   |  |
| ErC50     | EC50 in terms of reduction of growth rate   |  |
| LC50      | Lethal Concentration 50 %   |  |
| LD50      | Lethal Dose 50 %  |  |
| NOAEL     | No Observed Adverse Effect Level  |  |
| NOEC      | No Observed Effect Concentration  |  |
| OECD      | Organisation for Economic Co-operation and Development                            |  |

Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15

| PBT  | Persistent, Bioaccumulative & Toxic    |
|------|--|
| PNEC | Predicted No Effect Concentration      |
| STP  | Sludge Treatment Process               |
| vPvB | very Persistent & very Bioaccumulative |

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

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