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	

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG) Technische Schoolstraat 43 A, B-2440 Geel http://www.big.be © BIG vzw Reason for revision: 2; 3.2; 4; 5; 7; 8; 9; 11; 12; 15 Revision number: 0600

Publication date: 2000-09-20 Date of revision: 2017-01-31 16433-540-en

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 REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
naphtha (petroleum), solvent-refined light	64741-84-0 265-086-6	30%≤C≤50%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	(1)(6)(10)	Constituent
propane 01-2119486944-21	74-98-6 200-827-9	10%≤C≤30%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
butane 01-2119474691-32	106-97-8 203-448-7	10%≤C≤30%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
isobutane 01-2119485395-27	75-28-5 200-857-2	1%≤C≤10%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant
N,N-dimethyl-p-toluidine	99-97-8 202-805-4	C<1 %	Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H301 STOT RE 2; H373 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 reglementaire indicative) 800 ppm Time-weighted average exposure limit 8 h (VL: Valeur non 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 (EH40/2005)) 1800 mg/m² JK Time-weighted average exposure limit 8 h (Workplace exposure limit (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
exposure limit value Line S00 ppm S00 ppm Line Vieta exposure limit 8 h (Vi: Valeur non réglementaire indicative) Line Vieta exposure limit 8 h (Vi: Valeur non réglementaire indicative) Line Vieta exposure limit 8 h (Vi: Valeur non réglementaire indicative) Line Vieta non réglementaire indicative) Line Line Vieta non réglementaire indicative) Line Line Line Vieta non réglementaire indicative) Line Vieta non reglementaire indicative) Line Line Vieta non reglementaire <td>exposure limit value) Time-weighted average exposure limit 8 h (Private occupation exposure limit value) France '-Butane Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Sermany Butan 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) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan 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) JK Statane Time-weighted average exposure limit 8 h (Vorkplace exposure limit 4 h (TRGS 900)) JK (TV-ACGH) Stort time value (Workplace exposure limit 1 h (TRGS 900)) JK (TV-ACGH) Stort time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) JN Attonal biological limit values Stort time val</td> <td>I</td>	exposure limit value) Time-weighted average exposure limit 8 h (Private occupation exposure limit value) France '-Butane Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Sermany Butan 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) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan Time-weighted average exposure limit 8 h (TRGS 900) oppan 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) JK Statane Time-weighted average exposure limit 8 h (Vorkplace exposure limit 4 h (TRGS 900)) JK (TV-ACGH) Stort time value (Workplace exposure limit 1 h (TRGS 900)) JK (TV-ACGH) Stort time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) JN Attonal biological limit values Stort time val	I
Time-weighted average exposure limit 8 h (Private occupational exposure limit value) 1430 mg/m² exposure limit value) France Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) 800 ppm Semany Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) 1900 mg/m² Semany Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Sobutan Time-weighted average exposure limit 8 h (TRGS 900) 2000 mg/m² sobutan Time-weighted average exposure limit 8 h (TRGS 900) 2000 mg/m² rome-weighted average exposure limit 8 h (TRGS 900) 2000 mg/m² 2000 mg/m² votan Time-weighted average exposure limit 1 h (TRGS 900) 2000 mg/m² votan Time-weighted average exposure limit 8 h (TRGS 900) 2000 mg/m² votan Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm votane Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm votane Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm votane Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm votane Time-weighted average exposure limit 8 h (Morkplace exposure limit 1 h (TRGS 900) <	Time-weighted average exposure limit 8 h (Private occupation exposure limit value) France - Butane Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Sermany Butan Time-weighted average exposure limit 8 h (TRGS 900) Sobutan Time-weighted average exposure limit 8 h (TRGS 900) Propan Time-weighted average exposure limit 8 h (TRGS 900) Propan Time-weighted average exposure limit 8 h (TRGS 900) UK Statane Butane 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 Statane Time-weighted average exposure limit 8 h (TRGS 900) UK Statane Time-weighted average exposure limit 8 h (Norkplace exposus (EH40/2005)) Short time value (Workplace exposure limit 8 h (VARD) Statane UE440/2005) Short time value (Workplace exposure limit 15 h (Workplace exposus) Short time value (Workplace exposure limit 8 h (VARD) Statane UE440/2005) Short time value (Workplace exposure limit 15 h (VALD) St	nal 592 ppm
réglementaire indicative) 1300 mg/m² Germany 11000 ppm Butan 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 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) 1000 mg/m² 1000 mg/m² UK Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Time-weighted average exposure limit 8 h (TRGS 900) 1000 mg/m² UK Time-weighted average exposure limit 8 h (Workplace exposure limit 16 HQ/2005)) Time-weighted average exposure limit 8 h (Workplace exposure limit 16 HQ/2005)) 1450 mg/m² Short time value (Workplace exposure limit 8 h (Workplace exposure limit 16 HQ/2005)) Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Short time value (Workplace exposure limit 6 HQ/2005)) Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Short time value (Workplace exposure limit 8 h (TRGS 900) 1000 ppm 100	n-Butane Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Germany Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Germany Time-weighted average exposure limit 8 h (TRGS 900) Statan Time-weighted average exposure limit 8 h (TRGS 900) Status Time-weighted average exposure limit 8 h (TRGS 900) Status Time-weighted average exposure limit 8 h (TRGS 900) Propan Time-weighted average exposure limit 8 h (TRGS 900) Status Time-weighted average exposure limit 8 h (TRGS 900) UK Butane Butane Time-weighted average exposure limit 8 h (Workplace exposus (EH40/2005)) Status 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 10 h (MOrkplace exposure 10 h (MOrkplace exposure	nal 1430 mg/m ³
réglementaire indicative) 1300 mg/m² Germany 11000 ppm Butan 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 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) 1000 mg/m² 1000 mg/m² Butane Time-weighted average exposure limit 8 h (TRGS 900) 1000 mg/m² Butane Time-weighted average exposure limit 8 h (TRGS 900) 1000 mg/m² Butane Time-weighted average exposure limit 8 h (TRGS 900) 1800 mg/m² Short time value (Workplace exposure limit 8 h (Workplace exposure limit (EH40/2005)) TS0 ppm Short time value (Workplace exposure limit (EH40/2005)) 1810 mg/m² USA (TLV-ACGIH) 1000 ppm 1000 ppm USA (TLV-ACGIH) 1000 ppm 1000 ppm USA (EIL-ACGIH) 1000 ppm 1000 ppm USA (EIL-ACGIH) <td>réglementaire indicative) Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Germany Butan Time-weighted average exposure limit 8 h (TRGS 900) isobutan 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) 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 exposu (EH40/2005)) Short time value (Workplace exposure limit 18 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit 18 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace 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 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (</td> <td></td>	réglementaire indicative) Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) Germany Butan Time-weighted average exposure limit 8 h (TRGS 900) isobutan 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) 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 exposu (EH40/2005)) Short time value (Workplace exposure limit 18 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace exposure limit 18 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit (EH40/2005)) Short time value (Workplace 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 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (Workplace exposure limit 8 h (Workplace exposu (EH40/2005)) Short time value (
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 ³ Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m ³ Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m ³ Ime-weighted average exposure limit 8 h (TRGS 900) 2400 mg/m ³ Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Time-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Ime-weighted average exposure limit 8 h (TRGS 900) 1000 ppm Ime-weighted average exposure limit 8 h (Workplace exposure limit 8 h (Morkplace exposure limit 1 h (TRGS 900) 1000 ppm Short time value (Workplace exposure limit 1 h (Workplace exposure limit 8 h (Morkplace exposure limit 1 h (Morkplace exposure limit 1 h (Morkplace exposure limit 1 h (EH40/2005)) Short time value (Workplace exposure limit 1 (EH40/2005)) 750 ppm Short time value (Workplace exposure limit (EH40/2005)) 1810 mg/m ³ USA (TLV-ACGIH) Butane, all isomers Short time value (TLV - Adopted Value) 1000 ppm b) National biological limit values Fil limit values are applicable and available these will be listed below. USA (BEL-ACGIH) Blood: during or end of shift 1,5 % of hemoglobin inducers Blood: during or end of shift 1,5 % of hemoglobin inducers N,N-Dimethy P-Toluidine (Amines, Aromatic) NIOSH 2002 OIM ist (Mineral) NIOSH 2002 OIM ist (Mineral) A DRU/PNEC values DNEL/DMEL - Workers Ndimethyl-p-Toluidine (Amines, Aromatic) NIOSH 2026 DNEL/DMEL - Morkers Ndimethyl-p-toluidine Effect value (DNE/L/OMEL) Type Value Remark DNEL/DMEL - Morkers DNL-DMEL - General population Ndimethyl-p-toluidine Effect value (DNE/L/OMEL) Type Value Remark Long-term systemic effects inhalation 0.302 mg/m ³ Long-term systemic effects oral 0.374 mg/m ³	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 (EH40/2005)) Time-weighted average exposure limit & h (Workplace exposu (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/m³</td></tr<>	1900 mg/m ³
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 ³ 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 ³ UK Time-weighted average exposure limit 8 h (Workplace exposure limit 16 H (H GS 900)) 1450 mg/m ³ UK Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m ³ 600 ppm UK Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m ³) 1450 mg/m ³ UK Time-weighted average exposure limit 8 h (Workplace exposure limit 1450 mg/m ³) 1450 mg/m ³ UK Short time value (Workplace exposure limit (EH40/2005)) 1810 mg/m ³ USA (TLV-ACGH) Short time value (Workplace exposure limit (EH40/2005)) 1810 mg/m ³ 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) 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 Butane Time-weighted average exposure limit 8 h (Workplace exposu (EH40/2005)) 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 (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 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 hemoglobin 2 2 Sampling methods 1 applicable and available it will be listed below. USA (BEI-ACGIH) Mito Values are applicable and available these will be listed below. USA (BEI-ACGIH) Methemoglobin inducers Blood: during or end of shift 1,5 % of hemoglobin 2 2 Sampling methods 1 applicable and available it will be listed below. 4 DNEL/DMELV MUSH 5026 3 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 N.N-dimethyl-p-toluidine Effect level (DNEL/DMEL) Type Value R 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 ³
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 (EH40/2005)) Time-weighted average 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 Butane, all isomers Short time value (TLV - Adopted Value) b) National biological limit values Blood: during or end of shift 1,5 % of 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 (EH40/2005)) Time-weighted average 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 Butane, all isomers Short time value (TLV - Adopted Value) b) National biological limit values Blood: during or end of shift 1,5 % of 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 ³ 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 ³ 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 (EH40/2005)) Time-weighted average exposure limit 8 h (Workplace exposu (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 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 ³
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 (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 (EH40/2005)) Time-weighted average 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 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 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/m³<</td><td>1800 mg/m³</td></t<>	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 (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 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 ³ <	1800 mg/m ³
Butane Time-weighted average exposure limit 8 h (Workplace exposure limit 600 ppm (EH40/2005)) 600 ppm 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 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 (EH40/2005)) Time-weighted average 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 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 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 ³ 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 (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 (Methemoglobin) 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) 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 ³ 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 ³
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 ³ Long-term systemic effects oral 0.3174 mg/m ³	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 (Methemoglobin) Blood: during or end of shift 1,5 % of 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 ³ 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 ³ DNEL Long-term systemic effects dermal 0.347 mg/kg bw/day DNEL Long-term systemic effects dermal 0.417 mg/m ³	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 ³ 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 ³ Long-term systemic effects dermal 0.302 mg/m ³ Long-term systemic effects dermal 0.347 mg/kg bw/day Long-term systemic effects oral 0.174 mg/m ³ Image of the term systemic effects oral 0.174 mg/m ³ 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 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 DNEL/PNEC values DNEL/DNEL - Workers Value Remark NN-dimethyl-p-toluidine Value Remark DNEL Long-term systemic effects inhalation 1.224 mg/m ³ 1.224 mg/m ³ 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 ³ 1.003-term systemic effects dermal 0.302 mg/m ³ 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 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 Yalue Effect level (DNEL/DMEL) Type Value R DNEL Long-term systemic effects inhalation 1.224 mg/m ³ Long-term systemic effects dermal 0.694 mg/kg bw/day DNEL/DMEL - General population N.N-dimethyl-p-toluidine Type Value R DNEL Long-term systemic effects inhalation 1.224 mg/m ³ Image: State of the systemic effects dermal 0.694 mg/kg bw/day DNEL/DMEL - General population N.N-dimethyl-p-toluidine Value R R DNEL Long-term systemic effects inhalation 0.302 mg/m ³ Image: State of the systemic effects dermal 0.347 mg/kg bw/day DNEL Long-term systemic effects oral 0.174 mg/m ³ Image: State of the systemic effects oral 0.174 mg/m ³	
N.N-Dimethyl p-Toluidine (Amines, Aromatic) NIOSH 2002 Oil Mist (Mineral) 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 Remark DNEL DNEL Long-term systemic effects inhalation 1.224 mg/m ³ 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 <u>Long-term systemic effects inhalation 0.302 mg/m³ Long-term systemic effects dermal 0.347 mg/kg bw/day</u> DNEL <u>Long-term systemic effects oral</u> 0.174 mg/m ³	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. 4 DNEL/PNEC values DNEL/DMEL - Workers N.N-dimethyl-p-toluidine Ype Value R DNEL Long-term systemic effects inhalation 1.224 mg/m ³ DNEL/DMEL - General population N.N-dimethyl-p-toluidine 0.694 mg/kg bw/day DNEL/DMEL - Ivel (DNEL/DMEL) Type Value R DNEL 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 0.302 mg/m ³ R DNEL Long-term systemic effects dermal 0.347 mg/kg bw/day R	
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 4 DNEL/PNEC values DNEL/DMEL - Workers N.N-dimethyl-p-toluidine Value Remark Effect level (DNEL/DMEL) Type Value Remark DNEL Long-term systemic effects inhalation 1.224 mg/m ³	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 ³ Long-term systemic effects dermal 0.347 mg/kg bw/day Long-term systemic effects oral 0.174 mg/m ³	DNEL Long-term systemic effects inhalation 0.302 mg/m ³ Long-term systemic effects dermal 0.347 mg/kg bw/day Long-term systemic effects oral 0.174 mg/m ³	Pomark
Long-term systemic effects dermal 0.347 mg/kg bw/day Long-term systemic effects oral 0.174 mg/m ³	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 ³	Long-term systemic effects oral 0.174 mg/m ³	
	—	

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	 Observation time 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 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 tube)	LOAEL		6 mg/kg bw/day		male productive gan	Impairment/c eneration	deg 105 wee days/we		Rat (female)	Experimental value
Oral (stomach tube)	LOAEL	+	62.5 mg/		rious organs	Weight chang	ges 14 week days/we	•	Rat male/female)	Experimental value
Dermal		1	STOT RE	cat.2					indic/ icinaic _j	Annex VI
Dermal		1				<u> </u>				Data waiving
Inhalation	LOEL	1	67.28 mg	g/kg		Body weight			Rat	QSAR
(vapours) Classification is based o			bw/day			reduction		(1	male/female)	
Conclusion May cause drowsiness of Not classified for subch agenicity (in vitro)										
<u>PER AKTIVATOR</u> No (test)data on the mi <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 Not classified for mutage inogenicity <u>PER AKTIVATOR</u> No (test)data on the mi Judgement is based on iconclusion Not classified for carcin oductive toxicity <u>PER AKTIVATOR</u> No (test)data on the mi N,N-dimethyl-p-toluidir	ixture availab the relevant i logenicity ixture availab	ingredien ¹								
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	e 3	Linect	Organ	determinatio
Effects on fertility	LOAEL	(F2)		72.98 mg/k	g	Rat				QSAR
Judgement is based on <u>conclusion</u> Not classified for reprofective <u>city other effects</u> <u>PER AKTIVATOR</u> No (test)data on the minic effects from short and <u>PER AKTIVATOR</u> No effects known.	toxic or devel ixture availab	lopmental	ts 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 water	Value determination
Acute toxicity fishes	LL50	OECD 203	10 mg/l	96 h	,	Semi-static 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 Ila subcapitata	Static system	Fresh water	Experimental value
	NOELR	OECD 201	0.5 mg/l	72 h	Pseudokirchnerie Ila subcapitata	Static system	Fresh water	Experimental value
Long-term toxicity aquatic crustacea	NOELR	OECD 211	2.6 mg/l	21 day(s)		Semi-static system	Fresh water	Experimental value
N-dimethyl-p-toluidine								
	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		46 mg/l	96 h	Pimephales promelas		Fresh water	Experimental value; Lethal
Acute toxicity crustacea	LC50	ECOSAR	15.26 mg/l	48 h	Daphnia magna			QSAR
Toxicity algae and other aquatic plants	EC50		24.3 mg/l	72 h	Pseudokirchnerie Ila subcapitata	Flow-through system	Fresh water	QSAR
Long-term toxicity fish	LC50	ECOSAR	24.89 mg/l	14 day(s)				QSAR
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro- organisms	EC50		42.86 mg/l	48 h	Tetrahymena 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 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 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 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 N,N-dimethyl-p-toluidine	Substances of of the finiture Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 5.1.	 Shall not be used in: ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, tricks and jokes, 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:
naphtha (petroleum), solvent-refined light	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or	 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: metallic glitter intended mainly for decoration, artificial snow and frost, "whoopee" cushions,
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

Date of revision: 2017-01-31

Product number: 32188

pyrophoric solid	s category 1, regardless of	 — silly string aerosols,
whether they ap	pear in Part 3 of Annex VI to	— imitation excrement,
that Regulation	or not.	- horns for parties,
		 decorative flakes and foams,
		— 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.

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

Publication date: 2000-09-20 Date of revision: 2017-01-31

Revision number: 0600