

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

NOVAFILL FLEX

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

1.1. Product identifier

Product name : NOVAFILL FLEX
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Primer

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

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
☎ +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
☎ +32 14 85 97 38
info@novatech.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

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

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.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H336: May cause drowsiness or dizziness.

2.2. Label elements



Contains: acetone.

Signal word

Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

P-statements

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.

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P251 Do not pierce or burn, even after use.
P280 Wear protective gloves, protective clothing and eye protection/face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

Supplemental information

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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	M-factors and ATE
acetone 01-2119471330-49	67-64-1 200-662-2	30% <C<60%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
petroleum gases, liquefied	68476-85-7 270-704-2	30% <C<60%	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	
kaolin	1332-58-7 310-194-1	5%<C<10%		(2)	Constituent	
xylene 01-2119488216-32	1330-20-7 215-535-7	5%<C<10%	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Asp. Tox. 1; H304 STOT RE 2; H373 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Chronic 3; H412	(1)(2)(6)(10)	Constituent	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] 01-2119489379-17	13463-67-7 236-675-5	1%<C<5%	Carc. 2; H351	(1)(2)	Constituent	
2-butoxyethanol 01-2119475108-36	111-76-2 203-905-0	1%<C<5%	Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	(1)(2)(10)	Constituent	ATE oral: 1200 mg/kg
ethylbenzene 01-2119489370-35	100-41-4 202-849-4	1%<C<5%	Flam. Liq. 2; H225 Acute Tox. 4; H332 Asp. Tox. 1; H304 STOT RE 2; H373 Aquatic Chronic 3; H412	(1)(2)(6)(10)	Constituent	
n-butyl acetate 01-2119485493-29	123-86-4 204-658-1	C<1%	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
2-methylpropan-1-ol 01-2119484609-23	78-83-1 201-148-0	C<1%	Flam. Liq. 3; H226 Eye Dam. 1; H318 Skin Irrit. 2; H315 STOT SE 3; H335 STOT SE 3; H336	(1)(2)(10)	Constituent	
toluene 01-2119471310-51	108-88-3 203-625-9	C<1%	Flam. Liq. 2; H225 Repr. 2; H361d Asp. Tox. 1; H304 STOT RE 2; H373 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H336 Aquatic Chronic 3; H412	(1)(2)(10)(6)	Constituent	

(1) For H- and EUH-statements in full: see section 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

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SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

4.2.1 Acute symptoms

After inhalation:

Dizziness. Drowsiness.

After skin contact:

Tingling/irritation of the skin.

After eye contact:

Irritation of the eye tissue.

After ingestion:

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:

Small fire: Water, Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

Major fire: Quantities of water.

5.2. Special hazards arising from the substance or mixture

Upon combustion: CO and CO2 are formed. 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: persistent risk of physical explosion.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

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 section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective goggles (EN 166). Head/neck protection. Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into 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

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See section 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. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Meet the legal requirements. Keep container in a well-ventilated place. Fireproof storeroom. Protect against frost. Keep out of direct sunlight.

7.2.2 Keep away from:

Heat sources, ignition sources, oxidizing agents.

7.2.3 Suitable packaging material:

Aerosol.

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.

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.

EU

2-Butoxyethanol	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	98 mg/m ³
	Short time value (Indicative occupational exposure limit value)	50 ppm
	Short time value (Indicative occupational exposure limit value)	246 mg/m ³
Acetone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	500 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1210 mg/m ³
Ethylbenzene	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	100 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	442 mg/m ³
	Short time value (Indicative occupational exposure limit value)	200 ppm
	Short time value (Indicative occupational exposure limit value)	884 mg/m ³
n-Butyl acetate	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	241 mg/m ³
	Short time value (Indicative occupational exposure limit value)	150 ppm
	Short time value (Indicative occupational exposure limit value)	723 mg/m ³
Toluene	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	192 mg/m ³
	Short time value (Indicative occupational exposure limit value)	100 ppm
	Short time value (Indicative occupational exposure limit value)	384 mg/m ³
Xylene, mixed isomers, pure	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	221 mg/m ³
	Short time value (Indicative occupational exposure limit value)	100 ppm
	Short time value (Indicative occupational exposure limit value)	442 mg/m ³

Belgium

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2-Butoxyéthanol	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	98 mg/m ³
	Short time value	50 ppm
	Short time value	246 mg/m ³
Acétate de butyle, tous isomères: n-, iso, sec, tert	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	238 mg/m ³
	Short time value	150 ppm
	Short time value	712 mg/m ³
Acétone <i>shall apply from 2022-01-01</i>	Time-weighted average exposure limit 8 h	246 ppm
Acétone <i>shall apply until 2021-12-31</i>	Time-weighted average exposure limit 8 h	500 ppm
	Time-weighted average exposure limit 8 h	1210 mg/m ³
Acétone <i>shall apply from 2022-01-01</i>	Time-weighted average exposure limit 8 h	594 mg/m ³
Acétone <i>shall apply until 2021-12-31</i>	Short time value	1000 ppm
Acétone <i>shall apply from 2022-01-01</i>	Short time value	492 ppm
	Short time value	1187 mg/m ³
Acétone <i>shall apply until 2021-12-31</i>	Short time value	2420 mg/m ³
Alcool isobutylique	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	154 mg/m ³
Ethylbenzène	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	87 mg/m ³
	Short time value	125 ppm
	Short time value	551 mg/m ³
Kaolin (fraction alvéolaire)	Time-weighted average exposure limit 8 h	2 mg/m ³
Pétrole (gaz liquéfié)	Time-weighted average exposure limit 8 h	1000 ppm
	Time-weighted average exposure limit 8 h	1826 mg/m ³
Titane (dioxyde de)	Time-weighted average exposure limit 8 h	10 mg/m ³
Toluène	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	77 mg/m ³
	Short time value	100 ppm
	Short time value	384 mg/m ³
Xylène, isomères mixtes, purs	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	221 mg/m ³
	Short time value	100 ppm
	Short time value	442 mg/m ³

The Netherlands

2-Butoxyethanol	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	20 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	100 mg/m ³
	Short time value (Public occupational exposure limit value)	50 ppm
	Short time value (Public occupational exposure limit value)	246 mg/m ³
Aceton	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	500 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1210 mg/m ³
	Short time value (Public occupational exposure limit value)	1002 ppm
	Short time value (Public occupational exposure limit value)	2420 mg/m ³
Ethylbenzeen	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	49 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	215 mg/m ³
	Short time value (Public occupational exposure limit value)	97 ppm
	Short time value (Public occupational exposure limit value)	430 mg/m ³
n-Butylacetaat	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	50 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	241 mg/m ³
	Short time value (Public occupational exposure limit value)	150 ppm
	Short time value (Public occupational exposure limit value)	723 mg/m ³

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Olienevel (minerale olie)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	5 mg/m ³
Tolueen	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	39 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	150 mg/m ³
	Short time value (Public occupational exposure limit value)	100 ppm
	Short time value (Public occupational exposure limit value)	384 mg/m ³
Xyleen, o-, m-, p-isomeren	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	48 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	210 mg/m ³
	Short time value (Public occupational exposure limit value)	100 ppm
	Short time value (Public occupational exposure limit value)	442 mg/m ³

France

2-Butoxyéthanol	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	10 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	49 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	50 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	246 mg/m ³
Acétate de n-butyle	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	150 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	710 mg/m ³
	Short time value (VL: Valeur non réglementaire indicative)	200 ppm
	Short time value (VL: Valeur non réglementaire indicative)	940 mg/m ³
Acétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	500 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	1210 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	1000 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	2420 mg/m ³
Alcool isobutylique	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	50 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	150 mg/m ³
Ethylbenzène	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	20 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	88.4 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	442 mg/m ³
Kaolin	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m ³
Titane (dioxyde de), en Ti	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m ³
Toluène	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	20 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	76.8 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	384 mg/m ³
Xylènes, isomères mixtes, purs	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	221 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	442 mg/m ³

Germany

2-Butoxyethanol	Time-weighted average exposure limit 8 h (TRGS 900)	10 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	49 mg/m ³
2-Methylpropan-1-ol	Time-weighted average exposure limit 8 h (TRGS 900)	100 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	310 mg/m ³
Aceton	Time-weighted average exposure limit 8 h (TRGS 900)	500 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1200 mg/m ³
Ethylbenzol	Time-weighted average exposure limit 8 h (TRGS 900)	20 ppm

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Ethylbenzol	Time-weighted average exposure limit 8 h (TRGS 900)	88 mg/m ³
n-Butylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	62 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	300 mg/m ³
Toluol	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	190 mg/m ³
Xylol (alle Isomeren)	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	220 mg/m ³

Austria

2-Butoxyethanol	Tagesmittelwert (MAK)	20 ppm
	Tagesmittelwert (MAK)	98 mg/m ³
	Kurzzeitwert 30(Miw) 4x (MAK)	40 ppm
	Kurzzeitwert 30(Miw) 4x (MAK)	200 mg/m ³
Aceton	Tagesmittelwert (MAK)	500 ppm
	Tagesmittelwert (MAK)	1200 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	2000 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	4800 mg/m ³
Butanol (alle Isomeren außer 2- Methyl-2-propanol):1-Butanol 2-Butanol2- Methyl-1-propanol	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	150 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	200 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	600 mg/m ³
Butylacetat alle Isomere (außer tert-Butylacetat): Isobutylacetat n-Butylacetat sec-Butylacetat	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	241 mg/m ³
	Kurzzeitwert Mow (MAK)	100 ppm
	Kurzzeitwert Mow (MAK)	480 mg/m ³
Ethylbenzol	Tagesmittelwert (MAK)	100 ppm
	Tagesmittelwert (MAK)	440 mg/m ³
	Kurzzeitwert 5(Mow) 8x (MAK)	200 ppm
	Kurzzeitwert 5(Mow) 8x (MAK)	880 mg/m ³
Titandioxid (Alveolarstaub)	Tagesmittelwert (MAK)	5 mg/m ³
	Kurzzeitwert 60(Miw) 2x (MAK)	10 mg/m ³
Toluol	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	190 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	100 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	380 mg/m ³
Xylol (alle Isomeren): o-Xylol,m-Xylol p-Xylol	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	221 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	100 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	442 mg/m ³

UK

2-Butoxyethanol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	25 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	123 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	50 ppm
	Short time value (Workplace exposure limit (EH40/2005))	246 mg/m ³
2-Methylpropan-1-ol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	154 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	75 ppm
	Short time value (Workplace exposure limit (EH40/2005))	231 mg/m ³
Acetone	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	500 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1210 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	1500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	3620 mg/m ³

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Butyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	150 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	724 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	200 ppm
	Short time value (Workplace exposure limit (EH40/2005))	966 mg/m ³
Ethylbenzene	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	100 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	441 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	125 ppm
	Short time value (Workplace exposure limit (EH40/2005))	552 mg/m ³
Kaolin, respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 mg/m ³
Liquefied petroleum gas	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1000 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1750 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	1250 ppm
	Short time value (Workplace exposure limit (EH40/2005))	2180 mg/m ³
Titanium dioxide respirable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m ³
Titanium dioxide total inhalable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m ³
Toluene	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	191 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	384 mg/m ³
Xylene, o-,m-,p- or mixed isomers	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	220 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	441 mg/m ³

USA (TLV-ACGIH)

2-Butoxyethanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm
Acetone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	250 ppm
	Short time value (TLV - Adopted Value)	500 ppm
Butyl acetates, all isomers	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
	Short time value (TLV - Adopted Value)	150 ppm
Ethyl benzene	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm
Isobutanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
Kaolin	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m ³ (R,E)
Titanium dioxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	10 mg/m ³
Toluene	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm
Xylene (all isomers)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	100 ppm
	Short time value (TLV - Adopted Value)	150 ppm

R,E: Respirable fraction. The value is for particulate matter containing no asbestos and < 1% crystalline silica

b) National biological limit values

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

Germany

2-Butoxyethanol (Butoxyessigsäure (nach Hydrolyse))	Urin: expositionsende, bzw. schichtende bei langzeitexposition: nach mehreren vorangegangenen schichten	150 mg/g Kreatinin	
Aceton (Aceton)	Urin: expositionsende, bzw. schichtende	80 mg/l	
Ethylbenzol (Mandelsäure plus Phenylglyoxylsäure)	Urin: expositionsende, bzw. schichtende	250 mg/g Kreatinin	
Toluol (o-Kresol (nach Hydrolyse))	Urin: expositionsende, bzw. schichtende bei langzeitexposition: nach mehreren vorangegangenen schichten	1,5 mg/l	
Toluol (Toluol)	Urin: expositionsende, bzw. schichtende	75 µg/l	
Toluol (Toluol)	Vollblut: unmittelbar nach exposition	600 µg/l	
Xylol (alle isomeren) (Methylhippur-(Tolur-) säure (alle isomere))	Urin: expositionsende, bzw. schichtende	2000 mg/l	

UK

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2-Butoxyethanol (butoxyacetic acid)	Urine: post shift	240 mmol/mol creatinine	
Xylene, o-, m-, p- or mixed isomers (methyl hippuric acid)	Urine: post shift	650 mmol/mol creatinine	
USA (BEI-ACGIH)			
2-butoxyethanol (Butoxyacetic acid (BAA))	urine: end of shift	200 mg/g creatinine	With hydrolysis
Acetone (Acetone)	Urine: end of shift	25 mg/L	Nonspecific
Ethyl benzene (Sum of mandelic acid and phenylglyoxylic acid)	Urine: end of shift	0,15 g/g creatinine	Nonspecific
Toluene (o-Cresol)	Urine: end of shift	0,3 mg/g creatinine	Background, With hydrolysis
Toluene (Toluene)	Blood: prior to last shift of workweek	0,02 mg/L	
Toluene (Toluene)	urine: end of shift	0,03 mg/L	
Xylenes (technical or commercial grade) (Methylhippuric acids)	Urine: end of shift	1,5 g/g creatinine	

8.1.2 Sampling methods

Product name	Test	Number
2-Butoxyethanol (Alcohols IV)	NIOSH	1403
2-Butoxyethanol (Butyl Cellosolve solvent)	OSHA	83
Acetone (ketones 1)	NIOSH	1300
Acetone (ketones I)	NIOSH	2555
Acetone (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Acetone (Volatile Organic compounds)	NIOSH	2549
ACETONE and METHYL ETHYL KETONE in urine	NIOSH	8319
Acetone	OSHA	69
Butoxyacetic acid	NIOSH	8316
Butyl acetate (Volatile Organic compounds)	NIOSH	2549
Butyl cellosolve (Volatile Organic compounds)	NIOSH	2549
Butyl Cellosolve	OSHA	83
Ethyl Benzene (Hydrocarbons, Aromatic)	NIOSH	1501
Ethyl Benzene	OSHA	1002
Ethyl Benzene	OSHA	7
Isobutyl Alcohol (Alcohols Combined)	NIOSH	1405
Isobutyl Alcohol (Alcohols II)	NIOSH	1401
Isobutyl Alcohol	OSHA	7
n-Butyl Acetate (Esters I)	NIOSH	1450
n-Butyl Acetate	OSHA	1009
TiO2	NIOSH	7302
TiO2	NIOSH	7304
Toluene (Hydrocarbons, aromatic)	NIOSH	1501
Toluene (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Toluene (Volatile Organic compounds)	NIOSH	2549
Toluene in blood	NIOSH	8007
Toluene	NIOSH	4000
Toluene	NIOSH	8002
Toluene	OSHA	1021
Toluene	OSHA	111
Xylene (Hydrocarbons, aromatic)	NIOSH	1501
Xylene (Volatile Organic compounds)	NIOSH	2549

8.1.3 Applicable limit values when using the substance or mixture as intended

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

8.1.4 Threshold values

DNEL/DMEL - Workers

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1210 mg/m ³	
	Acute local effects inhalation	2420 mg/m ³	
	Long-term systemic effects dermal	186 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	221 mg/m ³	
	Acute systemic effects inhalation	442 mg/m ³	
	Long-term local effects inhalation	221 mg/m ³	
	Acute local effects inhalation	442 mg/m ³	
	Long-term systemic effects dermal	212 mg/kg bw/day	

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2-butoxyethanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	98 mg/m ³	
	Acute systemic effects inhalation	1091 mg/m ³	
	Acute local effects inhalation	246 mg/m ³	
	Long-term systemic effects dermal	125 mg/kg bw/day	
	Acute systemic effects dermal	89 mg/kg bw/day	

ethylbenzene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1 mg/m ³	
	Acute local effects inhalation	293 mg/m ³	
	Long-term systemic effects dermal	180 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	300 mg/m ³	
	Acute systemic effects inhalation	600 mg/m ³	
	Long-term local effects inhalation	300 mg/m ³	
	Acute local effects inhalation	600 mg/m ³	
	Long-term systemic effects dermal	11 mg/kg bw/day	
	Acute systemic effects dermal	11 mg/kg bw/day	

2-methylpropan-1-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	310 mg/m ³	

toluene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	192 mg/m ³	
	Acute systemic effects inhalation	384 mg/m ³	
	Long-term local effects inhalation	192 mg/m ³	
	Acute local effects inhalation	384 mg/m ³	
	Long-term systemic effects dermal	384 mg/kg bw/day	

DNEL/DMEL - General population

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	200 mg/m ³	
	Long-term systemic effects dermal	62 mg/kg bw/day	
	Long-term systemic effects oral	62 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	65.3 mg/m ³	
	Acute systemic effects inhalation	260 mg/m ³	
	Long-term local effects inhalation	65.3 mg/m ³	
	Acute local effects inhalation	260 mg/m ³	
	Long-term systemic effects dermal	125 mg/kg bw/day	
	Long-term systemic effects oral	12.5 mg/kg bw/day	

2-butoxyethanol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	59 mg/m ³	
	Acute systemic effects inhalation	426 mg/m ³	
	Acute local effects inhalation	147 mg/m ³	
	Long-term systemic effects dermal	75 mg/kg bw/day	
	Acute systemic effects dermal	89 mg/kg bw/day	
	Long-term systemic effects oral	6.3 mg/kg bw/day	
	Acute systemic effects oral	26.7 mg/kg bw/day	

ethylbenzene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	15 mg/m ³	
	Long-term systemic effects oral	1.6 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	35.7 mg/m ³	
	Acute systemic effects inhalation	300 mg/m ³	
	Long-term local effects inhalation	35.7 mg/m ³	
	Acute local effects inhalation	300 mg/m ³	
	Long-term systemic effects dermal	6 mg/kg bw/day	
	Acute systemic effects dermal	6 mg/kg bw/day	
	Long-term systemic effects oral	2 mg/kg bw/day	
	Acute systemic effects oral	2 mg/kg bw/day	

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2-methylpropan-1-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	55 mg/m ³	

toluene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	56.5 mg/m ³	
	Acute systemic effects inhalation	226 mg/m ³	
	Long-term local effects inhalation	56.5 mg/m ³	
	Acute local effects inhalation	226 mg/m ³	
	Long-term systemic effects dermal	226 mg/kg bw/day	
	Long-term systemic effects oral	8.13 mg/kg bw/day	

PNEC

acetone

Compartment	Value	Remark
Fresh water	10.6 mg/l	
Marine water	1.06 mg/l	
Fresh water (intermittent releases)	21 mg/l	
STP	100 mg/l	
Fresh water sediment	30.4 mg/kg sediment dw	
Marine water sediment	3.04 mg/kg sediment dw	
Soil	29.5 mg/kg soil dw	

xylene

Compartment	Value	Remark
Fresh water	0.327 mg/l	
Marine water	0.327 mg/l	
Fresh water (intermittent releases)	0.327 mg/l	
STP	6.58 mg/l	
Fresh water sediment	12.46 mg/kg sediment dw	
Marine water sediment	12.46 mg/kg sediment dw	
Soil	2.31 mg/kg soil dw	

2-butoxyethanol

Compartment	Value	Remark
Fresh water	8.8 mg/l	
Marine water	0.88 mg/l	
Fresh water (intermittent releases)	26.4 mg/l	
STP	463 mg/l	
Fresh water sediment	34.6 mg/kg sediment dw	
Marine water sediment	3.46 mg/kg sediment dw	
Soil	2.33 mg/kg soil dw	
Oral	20 mg/kg food	

ethylbenzene

Compartment	Value	Remark
Fresh water	0.1 mg/l	
Marine water	0.01 mg/l	
Fresh water (intermittent releases)	0.1 mg/l	
STP	9.6 mg/l	
Fresh water sediment	13.7 mg/kg sediment dw	
Marine water sediment	1.37 mg/kg sediment dw	
Soil	2.68 mg/kg soil dw	
Oral	0.02 g/kg food	

n-butyl acetate

Compartment	Value	Remark
Fresh water	0.18 mg/l	
Marine water	0.018 mg/l	
Fresh water (intermittent releases)	0.36 mg/l	
STP	35.6 mg/l	
Fresh water sediment	0.981 mg/kg sediment dw	
Marine water sediment	0.098 mg/kg sediment dw	
Soil	0.09 mg/kg soil dw	

2-methylpropan-1-ol

Compartment	Value	Remark
Fresh water	0.4 mg/l	
Fresh water (intermittent releases)	11 mg/l	
Marine water	0.04 mg/l	
STP	10 mg/l	
Fresh water sediment	1.56 mg/kg sediment dw	
Marine water sediment	0.156 mg/kg sediment dw	
Soil	0.076 mg/kg soil dw	

NOVAFILL FLEX

toluene

Compartment	Value	Remark
Fresh water	0.68 mg/l	
Marine water	0.68 mg/l	
Fresh water (intermittent releases)	0.68 mg/l	
STP	13.61 mg/l	
Fresh water sediment	16.39 mg/kg sediment dw	
Marine water sediment	16.39 mg/kg sediment dw	
Soil	2.89 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. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374).

c) Eye protection:

Protective goggles (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034). Head/neck protection.

8.2.3 Environmental exposure controls:

See sections 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	Solvent-like odour
Odour threshold	No data available in the literature
Colour	Variable in colour, depending on the composition
Particle size	Not applicable (aerosol)
Explosion limits	1.4 - 10.9 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	Not applicable (aerosol)
Boiling point	-40 °C - -2 °C ; Propellant
Relative vapour density	Not applicable (aerosol)
Vapour pressure	5900 hPa - 17600 hPa ; Propellant
Solubility	No data available in the literature
Relative density	Not applicable (aerosol)
Absolute density	Not applicable (aerosol)
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	Not applicable (aerosol)

9.2. Other information

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

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

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Precautionary measures

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.

10.6. Hazardous decomposition products

Upon combustion: CO and CO₂ are formed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1 Test results

Acute toxicity

NOVAFILL FLEX

No (test) data on the mixture available

Judgement is based on the relevant ingredients
acetone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		5800 mg/kg		Rat (female)	Experimental value	
Dermal	LD50		> 15800 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50		76 mg/l	4 h	Rat (female)	Weight of evidence	
					(male)		

xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to EU Method B.1	3523 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50	EU Method B.1	> 4000 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50		> 4200 mg/kg bw	4 h	Rabbit (male)	Weight of evidence	
Dermal			category 4			Annex VI	
Inhalation (vapours)	LC50	Equivalent to EU Method B.2	29.09 mg/l	4 h	Rat (male)	Experimental value	
Inhalation			category 4			Annex VI	

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal						Data waiving	
Inhalation (dust)	LC50	OECD 403	> 5.09 mg/l	4 h	Rat (male)	Experimental value	

2-butoxyethanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	ATE		1200 mg/kg bw			Annex VI	
Oral	LD50	Equivalent to OECD 401	1746 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50	OECD 401	1414 mg/kg bw		Guinea pig (male / female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Inhalation (vapours)	LC50		> 4.26 mg/l	4 h	Rat (male / female)	Experimental value	

The acute toxicity of this substance to rats, mice and rabbits is higher than it is to humans. Rats, mice and rabbits are highly susceptible to haemolysis following exposure to this substance and data from such species will overestimate the hazard to humans. Humans are not prone to such effects. The guinea pig is a much better model for predicting the hazard to humans.

ethylbenzene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		3500 mg/kg		Rat (male / female)	Experimental value	
Dermal	LD50		15432 mg/kg	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50		17.8 mg/l	4 h	Rat (male)	Experimental value	

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n-butyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 423	10760 mg/kg bw - 12789 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 14112 mg/kg bw		Rabbit (male / female)	Experimental value	
Inhalation (aerosol)	LC50	OECD 403	0.74 mg/l	4 h	Rat (male / female)	Experimental value	

2-methylpropan-1-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 2830 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50	OECD 401	3350 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Dermal	LD50	OECD 402	2460 mg/kg bw	24 h	Rabbit (female)	Experimental value	
Inhalation (vapours)	LC50		> 18.18 mg/l air	6 h	Rat (male / female)	Experimental value	

toluene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to EU Method B.1	5580 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		> 5000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	28.1 mg/l	4 h	Rat (male / female)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVAFILL FLEX

No (test) data on the mixture available

Classification is based on the relevant ingredients

acetone

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24 h	24; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Not irritating		3 day(s)	24; 48; 72 hrs; 4 days	Guinea pig	Weight of evidence	
Inhalation	Slightly irritating	Human observation study	20 minutes		Human	Literature study	

xylene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Moderately irritating			24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Moderately irritating		24 h	24; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating		4 h		Human	Read-across	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Not irritating	Equivalent to OECD 404	4 h	48 hours	Rabbit	Experimental value	

2-butoxyethanol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24 h	24; 48; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Irritating	EU Method B.4	4 h	24; 48; 72 hours	Rabbit	Experimental value	

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ethylbenzene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Slightly irritating			7 days	Rabbit	Experimental value	
Skin	Moderately irritating		24 h	24 hours	Rabbit	Experimental value	

n-butyl acetate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Dermal	Not irritating	Equivalent to OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

2-methylpropan-1-ol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405	24 h	24; 48; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Moderately irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Skin	Irritating	16 CFR 1500.41	24 h	24; 72 hours	Rabbit	Experimental value	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

toluene

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Slightly irritating	OECD 405			Rabbit	Experimental value	Single treatment without rinsing
Eye	Irritating	Equivalent to OECD 405		1 hr; 1; 2; 3; 4; 7 days	Rabbit	Experimental value	Single treatment without rinsing
Skin	Irritating	EU Method B.4	4 h	24; 48; 72 hours	Rabbit	Experimental value	

Conclusion

Causes skin irritation.
Causes serious eye irritation.
Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

NOVAFILL FLEX

No (test)data on the mixture available
Judgement is based on the relevant ingredients

acetone

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test			Guinea pig (female)	Experimental value	
Skin	Not sensitizing	Human observation			Human	Experimental value	

xylene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse	Experimental value	

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 429			Mouse (female)	Experimental value	
Inhalation (dust)	Not sensitizing				Mouse (female)	Experimental value	

2-butoxyethanol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (male / female)	Experimental value	

ethylbenzene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	

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n-butyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Equivalent to OECD 406			Guinea pig	Experimental value	

2-methylpropan-1-ol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Not applicable (in vitro test)	Not sensitizing					QSAR	

toluene

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	EU Method B.6			Guinea pig (female)	Experimental value	

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

NOVAFILL FLEX

No (test)data on the mixture available

Classification is based on the relevant ingredients

acetone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 408	4.86 mg/kg bw/day - 5.95 mg/kg bw/day		No effect	13 week(s)	Mouse (male / female)	Experimental value
Oral (drinking water)	LOAEL	Equivalent to OECD 408	11.3 mg/kg bw/day	Liver	Histopathology		Mouse (female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Subchronic toxicity test	19000 ppm		No effect	8 weeks (5 days / week)	Rat (male)	Experimental value
Inhalation (vapours)	Dose level	Human observation study	361 ppm	Central nervous system	neurotoxic effects	2 day(s)	Human	Epidemiological study

xylene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	LOAEL	Equivalent to OECD 408	150 mg/kg bw/day	Liver	Weight gain	90 day(s)	Rat (male)	Experimental value
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	150 mg/kg bw/day		No effect	90 day(s)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	Subchronic toxicity test	≥ 3515 mg/m ³		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 408	> 1000 mg/kg bw/day		No effect	90 day(s)	Rat (male / female)	Experimental value
Dermal								Data waiving

2-butoxyethanol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 408	< 69 mg/kg bw/day		No effect	90 days (continuous)	Rat (male)	Experimental value
Oral (drinking water)	NOAEL	Equivalent to OECD 408	< 82 mg/kg bw/day		No effect	90 day(s)	Rat (female)	Experimental value
Dermal	NOAEL	Equivalent to OECD 411	> 150 mg/kg bw/day		No effect	13 weeks (5 days / week)	Rabbit (male / female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	< 31 ppm		No effect	14 weeks (6h / day, 5 days / week)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	62.5 ppm		No effect	14 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

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NOVAFILL FLEX

ethylbenzene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 408	75 mg/kg bw/day		No effect	13 week(s)	Rat (male / female)	Experimental value
Oral (stomach tube)	LOAEL	OECD 408	250 mg/kg bw/day	Blood; liver	Impairment/degeneration	13 week(s)	Rat (male / female)	Experimental value
Inhalation	NOAEC	Equivalent to OECD 413	1000 ppm		No effect	13 weeks (6h / day, 5 days / week)	Mouse (male / female)	Experimental value
Inhalation	NOEC		114 ppm	Hearing organs	No effect	90 day(s)	Rat	Experimental value
Inhalation	LOEC		200 ppm	Hearing organs	Impairment/degeneration	90 day(s)	Rat	Experimental value

Due to differences in metabolism the relevance for humans if swallowed is questioned

n-butyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Subchronic toxicity test	125 mg/kg bw/day		No effect	13 week(s)	Rat (male / female)	Read-across
Oral (stomach tube)	LOAEL	Subchronic toxicity test	500 mg/kg bw/day	Central nervous system	Central nervous system depression	13 day(s)	Rat (male / female)	Read-across
Inhalation (vapours)	NOAEC	EPA OTS 798.2450	500 ppm		No adverse systemic effects	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value

2-methylpropan-1-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 408	> 1450 mg/kg bw/day		No effect	90 days (continuous)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEL systemic effects	Guideline 82-7, subdivision F	≥ 7.5 mg/l air		No adverse systemic effects	14.5 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

toluene

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to EU Method B.26	625 mg/kg bw/day		No effect	13 weeks (daily, 5 days / week)	Rat (male / female)	Experimental value
Oral (stomach tube)	LOAEL	Equivalent to EU Method B.26	1250 mg/kg bw/day		neurotoxic effects	13 weeks (daily, 5 days / week)	Rat (male / female)	
Dermal								Data waiving
Inhalation (vapours)	LOAEC	Equivalent to OECD 453	2261 mg/m ³ air	Respiratory tract	Erosion/degeneration nasal epithelia	103 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	Dose level	Human observation	50 ppm	Central nervous system	No effect	4.5 h	Human (male)	Experimental value

Conclusion

May cause drowsiness or dizziness.
Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVAFILL FLEX

No (test) data on the mixture available
Judgement is based on the relevant ingredients

acetone

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

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NOVAFILL FLEX

xylene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to EU Method B.19	Chinese hamster ovary (CHO)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 473	Chinese hamster ovary (CHO)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	

2-butoxyethanol

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)		Experimental value	

ethylbenzene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	

n-butyl acetate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

2-methylpropan-1-ol

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster lung fibroblasts (V79)		Experimental value	

toluene

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	

Mutagenicity (in vivo)

NOVAFILL FLEX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

acetone

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (drinking water))	Micronucleus test	13 week(s)	Mouse (male / female)		Literature study

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NOVAFILL FLEX

xylene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Subcutaneous)	Equivalent to OECD 478		Mouse (male / female)		Experimental value

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)		Experimental value

2-butoxyethanol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	Equivalent to OECD 474	3 dose(s)/24-hour interval	Mouse (male)		Experimental value

ethylbenzene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male)		Experimental value

n-butyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)		Read-across

2-methylpropan-1-ol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474		Mouse (male / female)		Experimental value

toluene

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)		1 day(s) - 5 day(s)	Rat	Bone marrow	Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAFILL FLEX

No (test)data on the mixture available

The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

acetone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOEL	Carcinogenic toxicity study	79 mg	51 weeks (3 times / week)	Mouse (female)	No carcinogenic effect		Literature study

xylene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral	Dose level	Equivalent to EU Method B.32	500 mg/kg bw/day	103 weeks (5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (aerosol)		Equivalent to OECD 453		105 weeks (6h / day, 5 days / week)	Rat (male)	Lung tissue affection/degeneration	Lungs	Experimental value
Inhalation (aerosol)	NOAEC	Equivalent to OECD 453	5 mg/m ³ air	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect	Lungs	Experimental value
Oral (diet)	NOEL	Carcinogenic toxicity study	50000 ppm	103 weeks (7 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

2-butoxyethanol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	> 125 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

ethylbenzene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	250 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

2-methylpropan-1-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown						No carcinogenic effect		QSAR

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toluene

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	1200 ppm	103 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value
Dermal	NOAEL	Equivalent to EPA OPP 83-5	0.05 ml (twice a week)		Mouse (male)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAFILL FLEX

No (test)data on the mixture available

Judgement is based on the relevant ingredients

acetone

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (aerosol))	NOAEC	Equivalent to OECD 414	2200 ppm	14 days (gestation, daily)	Rat	No effect	Foetus	Experimental value
	LOAEC	Equivalent to OECD 414	11000 mg/kg bw/day	14 days (gestation, daily)	Rat	Fetotoxicity	Foetus	Experimental value
Maternal toxicity (Inhalation (aerosol))	NOAEC	Equivalent to OECD 414	2200 ppm	14 days (gestation, daily)	Rat	No effect		Experimental value
	LOAEC	Equivalent to OECD 414	11000 ppm	14 days (gestation, daily)	Rat	Maternal toxicity		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL		900 mg/kg bw/day	13 week(s)	Rat (male)	No effect		Experimental value
	LOAEL		3400 mg/kg bw/day	13 week(s)	Rat (male)	Adverse effects on fertility	Male reproductive organ	Experimental value

xylene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	BMCL10	Equivalent to OECD 414	1082 ppm	15 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	BMCL10	Equivalent to OECD 414	887 ppm	15 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC		500 ppm		Rat (male / female)	No effect		Experimental value

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	2 weeks (7 days / week)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	1000 mg/kg bw/day	2 weeks (7 days / week)	Rat	No effect		Experimental value
Effects on fertility (Oral (diet))	NOAEL	OECD 443	≥ 1000 mg/kg bw/day	14 day(s)	Rat (male / female)	No effect		Experimental value

2-butoxyethanol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEC	Equivalent to OECD 414	200 mg/kg bw/day	3 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	30 mg/kg bw/day	3 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	Fertility Assessment	720 mg/kg bw/day	14 weeks (daily)	Mouse (male / female)	No effect		Experimental value

ethylbenzene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation)	NOAEC	OECD 414	500 ppm	15 days (gestation, daily)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation)	NOAEC	OECD 414	500 ppm	15 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Inhalation)	NOAEC	OECD 416	500 ppm	70 days (6h / day)	Rat (male / female)	No effect		Experimental value

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n-butyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	LOAEC	Equivalent to OECD 414	1500 ppm		Rat	Fetotoxicity		Experimental value
Maternal toxicity (Inhalation (vapours))	LOAEC	Equivalent to OECD 414	1500 ppm		Rat	Maternal toxicity		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	OECD 416	2000 ppm	> 90 day(s)	Rat (male / female)	No effect		Experimental value

2-methylpropan-1-ol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	OECD 414	10 mg/l air	10 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	OECD 414	10 mg/l air	10 days (gestation, daily)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEL	EPA OPPTS 870.3800	≥ 7.5 mg/l air	> 10 week(s)	Rat (male / female)	No effect		Experimental value

toluene

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	EPA OTS 798.4350	750 ppm	10 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEC	EPA OTS 798.4350	750 ppm	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC (P)	OECD 416	2000 ppm	11 weeks (6h / day, 7 days / week)	Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVAFILL FLEX

acetone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Skin				Skin	Skin dryness or cracking			Literature study

n-butyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
	NOEC	EPA OTS 798.6050	1500 ppm		Hypoactivity	6 h	Rat (male / female)	Experimental value
	NOAEC	EPA OTS 798.6050	500 ppm		no neurotoxic effects	13 week(s)	Rat (male / female)	Experimental value

2-methylpropan-1-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (vapours)	LOEL	EPA OTS 798.6050	4.5 mg/l air		Hypoactivity	6 h	Rat (male / female)	Experimental value
Inhalation (vapours)	LOEL	EPA OTS 798.6050	1500 ppm		Hypoactivity	6 h	Rat (male / female)	Experimental value

Chronic effects from short and long-term exposure

NOVAFILL FLEX

Dry skin.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

NOVAFILL FLEX

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

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NOVAFILL FLEX

acetone

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	6210 mg/l - 8120 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Measured concentration
Acute toxicity crustacea	LC50		8800 mg/l	48 h	Daphnia pulex	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	NOEC		530 mg/l		Algae		Fresh water	
Long-term toxicity aquatic crustacea	NOEC	Equivalent to OECD 211	2212 mg/l	28 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC50	Equivalent to OECD 209	61.15 g/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value

xylene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	2.6 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Read-across; Lethal
Acute toxicity crustacea	IC50	OECD 202	1 mg/l	24 h	Daphnia magna	Static system	Fresh water	Read-across; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	4.36 mg/l	73 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
	NOEC	OECD 201	0.44 mg/l	73 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
Long-term toxicity aquatic crustacea	NOEC	EPA 600/4-91-003	0.96 mg/l	7 day(s)	Ceriodaphnia dubia	Daily renewal	Fresh water	Read-across; Reproduction
Toxicity aquatic micro-organisms	EC50		96 mg/l					

Classification of this substance is debatable as it does not correspond to the conclusion from the test titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 1000 mg/l		Pisces		Fresh water	
Acute toxicity crustacea	EC50		> 1000 mg/l		Invertebrata		Fresh water	
Toxicity algae and other aquatic plants	EC50	OECD 201	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	$\geq 100 \text{ mg/l}$	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate

2-butoxyethanol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	1474 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	1550 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	1840 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	286 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOEC	Equivalent to OECD 204	> 100 mg/l	21 day(s)	Danio rerio	Semi-static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic crustacea	NOEC	OECD 211	100 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	Toxicity threshold	Equivalent to DIN 38412/8	700 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Nominal concentration

NOVAFILL FLEX

ethylbenzene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	4.2 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value
Acute toxicity crustacea	EC50	US EPA	1.8 mg/l - 2.4 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	EC50	US EPA	5.4 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Cell numbers
	NOEC	US EPA	3.6 mg/l	96 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Cell numbers
Long-term toxicity aquatic crustacea	NOEC	US EPA	0.96 mg/l	7 day(s)	Ceriodaphnia dubia	Semi-static system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	EC50		96 mg/l	24 h	Nitrosomonas			Experimental value

n-butyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	18 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	Equivalent to OECD 202	44 mg/l	48 h	Daphnia sp.	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	397 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; GLP
	NOEC	OECD 201	196 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Read-across; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	23.2 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Read-across; Reproduction
Toxicity aquatic micro-organisms	IC50	TETRATOX assay	356 mg/l	40 h	Tetrahymena pyriformis	Static system	Fresh water	Experimental value; Growth

	Parameter	Method	Value	Duration	Species	Value determination
Toxicity terrestrial plants	EC50	Equivalent to OECD 208	> 1000 mg/kg soil dw	14 day(s)	Lactuca sativa	Experimental value

2-methylpropan-1-ol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		1430 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	ASTM E729-80	1100 mg/l	48 h	Daphnia pulex	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC50	OECD 201	1799 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	53 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Biomass
Long-term toxicity aquatic crustacea	NOEC	Comparable to UBA	20 mg/l	21 day(s)	Daphnia magna		Fresh water	Experimental value; Reproduction

toluene

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		5.5 mg/l	96 h	Oncorhynchus kisutch	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	LC50	US EPA	3.78 mg/l	48 h	Ceriodaphnia dubia	Daily renewal	Fresh water	Experimental value
Toxicity algae and other aquatic plants	EC50		134 mg/l	3 h	Chlamydomonas angulosa	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish	NOEC		1.4 mg/l	40 day(s)	Oncorhynchus kisutch	Flow-through system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic crustacea	NOEC	US EPA	0.74 mg/l	7 day(s)	Ceriodaphnia dubia	Daily renewal	Fresh water	Experimental value; Reproduction

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

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NOVAFILL FLEX

acetone

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	90.9 %	28 day(s)	Experimental value

xylene

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	98 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	23.2 h	5E5 /cm ³	Read-across

Biodegradation soil

Method	Value	Duration	Value determination
Equivalent to OECD 304A	50 %	23 day(s)	Experimental value

2-butoxyethanol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	90.4 %; Carbon dioxide	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.90	5.459 h	1.5E6 /cm ³	QSAR

ethylbenzene

Biodegradation water

Method	Value	Duration	Value determination
ISO 14593	70 % - 80 %; GLP	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	2.3 day(s)	500000 /cm ³	Literature study

n-butyl acetate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	83 %; Oxygen consumption	28 day(s)	Experimental value

2-methylpropan-1-ol

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	70 % - 80 %; Oxygen consumption	28 day(s)	Experimental value

toluene

Biodegradation water

Method	Value	Duration	Value determination
APHA	81 %; Oxygen consumption	5 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	2.59 day(s)	5E5 /cm ³	Calculated value

Conclusion

Water

Contains readily biodegradable component(s)

12.3. Bioaccumulative potential

NOVAFILL FLEX

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

acetone

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.23		Test data

kaolin

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

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xylene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		25.9	56 day(s)	Oncorhynchus mykiss	Read-across

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.12 - 3.2	20 °C	Read-across

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

2-butoxyethanol

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
					Data waiving

Log Kow

Method	Remark	Value	Temperature	Value determination
BASF test		0.81	25 °C	Experimental value

ethylbenzene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		1	6 week(s)	Oncorhynchus kisutch	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
EU Method A.8		3.6	20 °C	Experimental value

n-butyl acetate

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		2.3	25 °C	Experimental value

2-methylpropan-1-ol

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		1	25 °C	Experimental value

toluene

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		90	72 h	Leuciscus idus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		2.73	20 °C	Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

acetone

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.374 - 0.988	Calculated value

xylene

(log) Koc

Parameter	Method	Value	Value determination
log Koc	Equivalent to OECD 121	2.73	Read-across

2-butoxyethanol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.451 - 0.882	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	0.31 %	0 %	0.01 %	0.59 %	99.09 %	QSAR

ethylbenzene

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	3.12	QSAR

n-butyl acetate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	1.268 - 1.844	Calculated value

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2-methylpropan-1-ol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.47	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	32.02 %		0.03 %	0.03 %	67.92 %	Calculated value

toluene

(log) Koc

Parameter	Method	Value	Value determination
Koc		205	Calculated value
log Koc		2.312	Calculated value

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
485 Pa.m ³ /mol				Calculated value

Conclusion

Contains component(s) that adsorb(s) into the soil
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. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

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Greenhouse gases

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)

acetone

Groundwater

Groundwater pollutant

2-butoxyethanol

Groundwater

Groundwater pollutant

ethylbenzene

Groundwater

Groundwater pollutant

n-butyl acetate

Groundwater

Groundwater pollutant

toluene

Groundwater

Groundwater 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 and Regulation (EU) No 2017/997.

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

08 01 11* (wastes from MFSU and removal of paint and varnish: waste paint and varnish containing organic solvents or other 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. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Reason for revision: 2, 3, 9, 12

Publication date: 2001-02-07

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Revision number: 1100

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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)

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	
Class	2
Classification code	5F
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
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)

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	no
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)

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	no
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)

Reason for revision: 2, 3, 9, 12

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Revision number: 1100

BIG number: 32507

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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	-
	Environmentally hazardous substance mark	no
14.6. Special precautions for user	Special provisions	190
	Special provisions	277
	Special provisions	327
	Special provisions	344
	Special provisions	381
	Special provisions	63
	Special provisions	959
	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)
14.7. Maritime transport in bulk according to IMO instruments	Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1. UN number	UN number	1950
14.2. UN proper shipping name	Proper shipping name	aerosols, flammable
14.3. Transport hazard class(es)	Class	2.1
14.4. Packing group	Packing group	
	Labels	2.1
14.5. Environmental hazards	Environmentally hazardous substance mark	no
14.6. Special precautions for user	Special provisions	A145
	Special provisions	A167
	Special provisions	A802
Passenger and cargo transport	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:

Explosives precursors

Due to the presence of one or more components in this mixture, acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

VOC content Directive 2010/75/EU

VOC content	Remark
90 % - 95 %	

Indicative occupational exposure limit values (Directive 98/24/EC, 2000/39/EC, 2004/37/EC and amendments)

xylene

Product name	Skin resorption
Xylene, mixed isomers, pure	Skin

2-butoxyethanol

Product name	Skin resorption
2-Butoxyethanol	Skin

ethylbenzene

Product name	Skin resorption
Ethylbenzene	Skin

Reason for revision: 2, 3, 9, 12

Publication date: 2001-02-07

Date of revision: 2022-01-28

Revision number: 1100

BIG number: 32507

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toluene

Product name	Skin resorption
Toluene	Skin

Directive 2012/18/EU (Seveso III)

Threshold values under normal circumstances

Substance or category	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P3b FLAMMABLE AEROSOLS	5000 (net)	50000 (net)	None	Flammability

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.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
- acetone - xylene 2-butoxyethanol - ethylbenzene - n-butyl acetate 2-methylpropan-1-ol - toluene	Liquid substances or mixtures 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 4.1; (d) hazard class 5.1.	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 with 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: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met: a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage"; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may lead to life threatening lung damage"; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
- acetone - xylene - ethylbenzene - n-butyl acetate 2-methylpropan-1-ol - toluene	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 pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. 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, — "whoopie" cushions, — silly string aerosols, — imitation excrement, — 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.
toluene	Toluene	Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.
- acetone - xylene 2-butoxyethanol 2-methylpropan-1-ol - toluene	Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

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due to effects only following exposure by inhalation
 — skin sensitiser category 1, 1A or 1B
 — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2
 — serious eye damage category 1 or eye irritant category 2
 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council
 (c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.
 The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

National legislation Belgium

NOVAFILL FLEX

No data available

petroleum gases, liquefied

Additional classification	Pétrole (gaz liquéfié); C; La mention “C” signifie que l’agent en question relève du champ d’application de l’arrêté royal du 2 décembre 1993 concernant la protection des travailleurs contre les risques liés à l’exposition à des agents cancérogènes et mutagènes et reprotoxiques au travail.
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xylene

Résorption peau	Xylène, isomères mixtes, purs; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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2-butoxyethanol

Résorption peau	2-Butoxyéthanol; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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ethylbenzene

Résorption peau	Ethylbenzène; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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toluene

Résorption peau	Toluène; D; La mention “D” signifie que la résorption de l’agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l’exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l’agent dans l’air.
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National legislation The Netherlands

NOVAFILL FLEX

Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)
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xylene

Huidopname (wettelijk)	Xyleen, o-, m-, p-isomeren; H
SZW - Lijst van voor de voortplanting giftige stoffen (ontwikkeling)	xyleen; Opgenomen in SZW-lijst van voor de voortplanting giftige stoffen (ontwikkeling); 2

2-butoxyethanol

Huidopname (wettelijk)	2-Butoxyethanol; H
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ethylbenzene

Huidopname (wettelijk)	Ethylbenzeen; H
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toluene

SZW - Lijst van voor de voortplanting giftige stoffen (ontwikkeling)	Toluene; Opgenomen in SZW-lijst van voor de voortplanting giftige stoffen (ontwikkeling); 2
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National legislation France

NOVAFILL FLEX

No data available

xylene

Risque de pénétration percutanée	Xylènes, isomères mixtes, purs; Risque de pénétration percutanée
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titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Catégorie cancérogène	Titane (dioxyde de), en Ti; C2
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2-butoxyethanol

Risque de pénétration percutanée	2-Butoxyéthanol; Risque de pénétration percutanée
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ethylbenzene

Risque de pénétration percutanée	Ethylbenzène; Risque de pénétration percutanée
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toluene

Catégorie toxique pour la reproduction	Toluène; R2
Risque de pénétration percutanée	Toluène; Risque de pénétration percutanée

National legislation Germany

NOVAFILL FLEX

Lagerklasse (TRGS510)	2B: Aerosolpackungen und Feuerzeuge
WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

acetone

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Aceton; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

kaolin

TA-Luft	5.2.1
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xylene

TA-Luft	5.2.5/I
Hautresorptive Stoffe	Xylol (alle Isomeren); H; Hautresorptiv

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

TA-Luft	5.2.1
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2-butoxyethanol

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	2-Butoxyethanol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	2-Butoxyethanol; H; Hautresorptiv

ethylbenzene

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	Ethylbenzol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	Ethylbenzol; H; Hautresorptiv

n-butyl acetate

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	n-Butylacetat; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

2-methylpropan-1-ol

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	2-Methylpropan-1-ol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

toluene

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	Toluol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	Toluol; H; Hautresorptiv

National legislation Austria

NOVAFILL FLEX

No data available

2-butoxyethanol

besondere Gefahr der Hautresorption	2-Butoxyethanol; H
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ethylbenzene

besondere Gefahr der Hautresorption	Ethylbenzol; H
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toluene

Fortpflanzungsgefährdend (fruchtschädigend (entwicklungsschädigend))	Toluol; d
besondere Gefahr der Hautresorption	Toluol; H

National legislation United Kingdom

NOVAFILL FLEX

No data available

xylene

Skin absorption	Xylene, o-,m-,p- or mixed isomers; Sk
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2-butoxyethanol

Skin absorption	2-Butoxyethanol; Sk
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ethylbenzene

Skin absorption	Ethylbenzene; Sk
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Reason for revision: 2, 3, 9, 12

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toluene

Skin absorption	Toluene; Sk
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Other relevant data

NOVAFILL FLEX

No data available

acetone

TLV - Carcinogen	Acetone; A4
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kaolin

TLV - Carcinogen	Kaolin; A4
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xylene

IARC - classification	3; Xylenes
TLV - Carcinogen	Xylene (all isomers); A4

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

IARC - classification	2B; Titanium dioxide
TLV - Carcinogen	Titanium dioxide; A4

2-butoxyethanol

TLV - Carcinogen	2-Butoxyethanol; A3
IARC - classification	3; 2-butoxyethanol

ethylbenzene

IARC - classification	2B; Ethylbenzene
TLV - Carcinogen	Ethyl benzene; A3

toluene

IARC - classification	3; Toluene
TLV - Carcinogen	Toluene; A4

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: May burst if heated.
H280 Contains gas under pressure; may explode if heated.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer if inhaled.
H361d Suspected of damaging the unborn child if inhaled.
H373 May cause damage to organs (central nervous system, liver, kidneys) through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (central nervous system, liver, kidneys) through prolonged or repeated exposure if swallowed.
H373 May cause damage to organs (ears (hearing damage)) through prolonged or repeated exposure if inhaled.
H373 May cause damage to organs (central nervous system) through prolonged or repeated exposure if inhaled.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
CLP (EU-GHS)	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
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process

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NOVAFILL FLEX

vPvB

very Persistent & very Bioaccumulative

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