SAFETY DATA SHEET

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

NOVAFILL FLEX 2 GREY

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

1.1. Product identifier

Product name : NOVAFILL FLEX 2 GREY
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

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.
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.
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.
P251 Do not pierce or burn, even after use.
P280 Wear eye 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

EUH066 Repeated exposure may cause skin dryness or cracking.

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
dimethyl ether 01-2119472128-37	115-10-6 204-065-8	10%<C<30%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas;	(1)(2)(10)	Propellant
4-methylpentan-2-one 01-2119473980-30	108-10-1 203-550-1	10%<C<30%	Flam. Liq. 2; H225 Acute Tox. 4; H332 Eye Irrit. 2; H319 STOT SE 3; H335	(1)(2)(10)	Constituent
acetone 01-2119471330-49	67-64-1 200-662-2	10%<C<30%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
kaolin	1332-58-7 310-194-1	10%<C<30%		(2)	Constituent
petroleum gases, liquefied	68476-85-7 270-704-2	5%<C<10%	Flam. Gas 1; H220 Press. Gas - Liquefied gas;	(1)(2)(10)	Propellant
butanone 01-2119457290-43	78-93-3 201-159-0	1%<C<5	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent
n-butyl acetate 01-2119485493-29	123-86-4 204-658-1	1%<C<5%	Flam. Liq. 3; H226 STOT SE 3; H336	(1)(2)(10)	Constituent
titanium dioxide 01-2119489379-17	13463-67-7 236-675-5	1%<C<5%		(2)	Constituent

(1) For H- and EUH-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

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:

No effects known.

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 and formation of metal oxides. Pressurised container: May burst if heated.

5.3. Advice for firefighters

5.3.1 Instructions:

Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. If exposed to fire cool the closed containers by spraying with water. After cooling: persistant risk of physical explosion.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective goggles (EN 166). 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 heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective goggles (EN 166). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See heading 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

See heading 13.

SECTION 7: Handling and storage

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

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe normal hygiene standards.

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. 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

4-Methylpentan-2-one	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)	83 mg/m³
	Short time value (Indicative occupational exposure limit value)	50 ppm
	Short time value (Indicative occupational exposure limit value)	208 mg/m³
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/m³
Butanone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	600 mg/m³
	Short time value (Indicative occupational exposure limit value)	300 ppm
	Short time value (Indicative occupational exposure limit value)	900 mg/m³
Dimethylether	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1000 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1920 mg/m³
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/m³
	Short time value (Indicative occupational exposure limit value)	150 ppm
	Short time value (Indicative occupational exposure limit value)	723 mg/m³

Belgium

2-Butanone	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	600 mg/m³
	Short time value	300 ppm
	Short time value	900 mg/m³
4-Méthyl-2-pentanone	Time-weighted average exposure limit 8 h	20 ppm
	Time-weighted average exposure limit 8 h	83 mg/m³
	Short time value	50 ppm
	Short time value	208 mg/m³
Acétate de n-butyle	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	238 mg/m³
	Short time value	150 ppm
	Short time value	712 mg/m³
Acétone	Time-weighted average exposure limit 8 h	500 ppm
	Time-weighted average exposure limit 8 h	1210 mg/m³
	Short time value	1000 ppm
	Short time value	2420 mg/m³
Kaolin (fraction alvéolaire)	Time-weighted average exposure limit 8 h	2 mg/m³
Oxyde de diméthyle	Time-weighted average exposure limit 8 h	1000 ppm
	Time-weighted average exposure limit 8 h	1920 mg/m³
Pétrole (gaz liquéfié)	Time-weighted average exposure limit 8 h	1000 ppm
	Time-weighted average exposure limit 8 h	1826 mg/m³
Titane (dioxyde de)	Time-weighted average exposure limit 8 h	10 mg/m³

The Netherlands

2-Butanon	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	197 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	590 mg/m³
	Short time value (Public occupational exposure limit value)	300 ppm
	Short time value (Public occupational exposure limit value)	900 mg/m³
4-Methyl-2-pentanon	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	25 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	104 mg/m³

4-Methyl-2-pentanon	Short time value (Public occupational exposure limit value)	50 ppm
	Short time value (Public occupational exposure limit value)	208 mg/m³
Aceton	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	501 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1210 mg/m³
	Short time value (Public occupational exposure limit value)	1002 ppm
	Short time value (Public occupational exposure limit value)	2420 mg/m³
Dimethylether	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	496 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	950 mg/m³
	Short time value (Public occupational exposure limit value)	783 ppm
	Short time value (Public occupational exposure limit value)	1500 mg/m³
Olienevel (minerale olie)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	5 mg/m³

France

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/m³
	Short time value (VL: Valeur non réglementaire indicative)	200 ppm
	Short time value (VL: Valeur non réglementaire indicative)	940 mg/m³
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/m³
	Short time value (VRC: Valeur réglementaire contraignante)	1000 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	2420 mg/m³
Kaolin	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Méthyléthylcétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	600 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	300 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	900 mg/m³
Méthylisobutylcétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	20 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	83 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	50 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	208 mg/m³
Oxyde de diméthyle	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1000 ppm
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1920 mg/m³
Titane (dioxyde de), en Ti	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³

Germany

4-Methylpentan-2-on	Time-weighted average exposure limit 8 h (TRGS 900)	20 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	83 mg/m³
Aceton	Time-weighted average exposure limit 8 h (TRGS 900)	500 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1200 mg/m³
Butanon	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	600 mg/m³
Dimethylether	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1900 mg/m³
n-Butylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	62 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	300 mg/m³

UK

4-Methylpentan-2-one	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))	208 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	416 mg/m³

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/m³
	Short time value (Workplace exposure limit (EH40/2005))	1500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	3620 mg/m³
Butan-2-one (methyl ethyl ketone)	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	300 ppm
	Short time value (Workplace exposure limit (EH40/2005))	899 mg/m³
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/m³
	Short time value (Workplace exposure limit (EH40/2005))	200 ppm
	Short time value (Workplace exposure limit (EH40/2005))	966 mg/m³
Dimethyl ether	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	766 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	958 mg/m³
Kaolin, respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	2 mg/m³
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/m³
	Short time value (Workplace exposure limit (EH40/2005))	1250 ppm
	Short time value (Workplace exposure limit (EH40/2005))	2180 mg/m³
Titanium dioxide respirable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Titanium dioxide total inhalable	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³

USA (TLV-ACGIH)

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
Kaolin	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 mg/m³ (R,E)
Methyl ethyl ketone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	300 ppm
Methyl isobutyl ketone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm
	Short time value (TLV - Adopted Value)	75 ppm
Titanium dioxide	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	10 mg/m³

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-Butanon (Methylethylketon) (2-Butanon)	Urin: expositionsende, bzw. schichtende	2 mg/l	
4-Methylpentan-2-on (4-Methylpentan-2-on)	Urin: expositionsende, bzw. schichtende	0,7 mg/l	
Aceton (Aceton)	Urin: expositionsende, bzw. schichtende	80 mg/l	

UK

4-methylpentan-2-one (4-methylpentan-2-one)	Urine: post shift	20 µmol/L	
Butan-2-one (butan-2-one)	Urine: post shift	70 µmol/L	

USA (BEI-ACGIH)

Acetone (Acetone)	Urine: end of shift	25 mg/L	Nonspecific
Methyl ethyl ketone (Methyl ethyl ketone)	urine: end of shift	2 mg/L	Nonspecific
Methyl isobutyl ketone (Methyl isobutyl ketone)	urine: end of shift	1 mg/L	

8.1.2 Sampling methods

Product name	Test	Number
2-Butanone (MEK) (Methyl ethyl ketone)	NIOSH	2500
2-Butanone (Methyl ethyl ketone)	OSHA	84
2-Butanone (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
2-Butanone (Volatile Organic compounds)	NIOSH	2549
2-Butanone	OSHA	1004
2-Butanone	OSHA	13
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
Butyl acetate (Volatile Organic compounds)	NIOSH	2549
Hexone	OSHA	1004
MEK	NIOSH	8002
Methyl Ethyl Ketone (ketones I)	NIOSH	2555
Methyl Ethyl Ketone	OSHA	16
Methyl Isobutyl Ketone (Hexone) (Ketones I)	NIOSH	1300
Methyl Isobutyl Ketone (ketones I)	NIOSH	2555
Methyl isobutyl ketone (Volatile Organic compounds)	NIOSH	2549
n-Butyl Acetate (Esters I)	NIOSH	1450
n-Butyl Acetate	OSHA	1009
TiO2	NIOSH	7302
TiO2	NIOSH	7304

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

dimethyl ether

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1894 mg/m³	

4-methylpentan-2-one

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	83 mg/m³	
	Acute systemic effects inhalation	208 mg/m³	
	Long-term local effects inhalation	83 mg/m³	
	Acute local effects inhalation	208 mg/m³	
	Long-term systemic effects dermal	11.8 mg/kg bw/day	

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1210 mg/m³	
	Acute local effects inhalation	2420 mg/m³	
	Long-term systemic effects dermal	186 mg/kg bw/day	

petroleum gases, liquefied

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	23.4 mg/kg bw/day	
DMEL	Long-term systemic effects inhalation	2.21 mg/m³	

butanone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	600 mg/m³	
	Long-term systemic effects dermal	1161 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	300 mg/m³	
	Acute systemic effects inhalation	600 mg/m³	
	Long-term local effects inhalation	300 mg/m³	
	Acute local effects inhalation	600 mg/m³	
	Long-term systemic effects dermal	11 mg/kg bw/day	
	Acute systemic effects dermal	11 mg/kg bw/day	

DNEL/DMEL - General population

dimethyl ether

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	471 mg/m³	

4-methylpentan-2-one

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	14.7 mg/m³	
	Acute systemic effects inhalation	155.2 mg/m³	
	Long-term local effects inhalation	14.7 mg/m³	
	Acute local effects inhalation	155.2 mg/m³	
	Long-term systemic effects dermal	4.2 mg/kg bw/day	
	Long-term systemic effects oral	4.2 mg/kg bw/day	

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	200 mg/m³	
	Long-term systemic effects dermal	62 mg/kg bw/day	
	Long-term systemic effects oral	62 mg/kg bw/day	

petroleum gases, liquefied

Effect level (DNEL/DMEL)	Type	Value	Remark
DMEL	Long-term systemic effects inhalation	0.066 mg/m³	

butanone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	106 mg/m³	
	Long-term systemic effects dermal	412 mg/kg bw/day	
	Long-term systemic effects oral	31 mg/kg bw/day	

n-butyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	35.7 mg/m³	
	Acute systemic effects inhalation	300 mg/m³	
	Long-term local effects inhalation	35.7 mg/m³	
	Acute local effects inhalation	300 mg/m³	
	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	

PNEC

dimethyl ether

Compartments	Value	Remark
Fresh water	0.155 mg/l	
Fresh water (intermittent releases)	1.549 mg/l	
Marine water	0.016 mg/l	
STP	160 mg/l	
Fresh water sediment	0.681 mg/kg sediment dw	
Marine water sediment	0.069 mg/kg sediment dw	
Soil	0.045 mg/kg soil dw	

4-methylpentan-2-one

Compartments	Value	Remark
Fresh water	0.6 mg/l	
Marine water	0.06 mg/l	
Fresh water (intermittent releases)	1.5 mg/l	
STP	27.5 mg/l	
Fresh water sediment	8.27 mg/kg sediment dw	
Marine water sediment	0.83 mg/kg sediment dw	
Soil	1.3 mg/kg soil dw	

acetone

Compartments	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	

butanone

Compartments	Value	Remark
Fresh water	55.8 mg/l	
Fresh water (intermittent releases)	55.8 mg/l	
Marine water	55.8 mg/l	
STP	709 mg/l	
Fresh water sediment	284.74 mg/kg sediment dw	
Marine water sediment	284.7 mg/kg sediment dw	
Soil	22.5 mg/kg soil dw	
Oral	1000 mg/kg food	

n-butyl acetate

Compartments	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	

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).

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Aerosol
Odour	Solvent-like odour
Odour threshold	No data available in the literature
Colour	Grey
Particle size	Not applicable (aerosol)
Explosion limits	1.4 - 26.2 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
Evaporation rate	
Relative vapour density	No data available in the literature
Vapour pressure	5130 hPa - 17600 hPa ; Propellant
Solubility	No data available in the literature
Relative density	Not applicable (aerosol)
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
Explosive properties	Not classified
Oxidising properties	Not classified
pH	Not applicable (aerosol)

9.2. Other information

Absolute density	Not applicable (aerosol)

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Unstable on exposure to heat.

10.3. Possibility of hazardous reactions

Reacts violently with (strong) oxidizers.

10.4. Conditions to avoid

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 and formation of metal oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

dimethyl ether

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral						Data waiving	
Dermal						Data waiving	
Inhalation (gases)	LC50		164000 ppm	4 h	Rat (male)	Experimental value	

As the substance is a gas, inhalation is the most likely route of exposure

4-methylpentan-2-one

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	2080 mg/kg		Rat	Experimental value	
Dermal	LD50	OECD 402	≥ 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	11.6 mg/l	4 h	Rat (male)	Experimental value	

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)	Weight of evidence	
Inhalation (vapours)	LC50		76 mg/l	4 h	Rat (female)	Weight of evidence	
					(male)		

petroleum gases, liquefied

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Inhalation	LC50		658 mg/l	4 h	Rat	Literature study	
Inhalation (gases)	LC50		1443 mg/l air	15 minutes	Rat (male / female)	Read-across	
Inhalation (gases)	LC50		52.04 %	120 minutes	Mouse (male)	Read-across	
Inhalation (gases)	NOEL	Other	1000 ppm	8 h	Human (male / female)	Read-across	

butanone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 423	2193 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 10 ml/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation						Data waiving	

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 (mixture of vapour and aerosol)	LC50	OECD 403	0.74 mg/l	4 h	Rat (male / female)		

titanium dioxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 425	> 5000 mg/kg bw		Rat (female)	Experimental value	
Dermal						Data waiving	
Inhalation (dust)	LC50	Other	> 6.82 mg/l	4 h	Rat (male)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Classification is based on the relevant ingredients

dimethyl ether

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

The liquid form can cause frostbites, typical for all liquefied gases

4-methylpentan-2-one

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Slightly irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	
Eye	category 2					Annex VI	
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating	Human observation	15 minutes		Human	Experimental value	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

acetone

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	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	

Skin and eye irritation are not relevant as substance is a gas

butanone

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

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	

titanium dioxide

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		Rabbit	Experimental value	

Conclusion

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

Respiratory or skin sensitisation

NOVAFILL FLEX 2 GREY

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

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

The study on skin sensitisation does not need to be conducted as the substance is a gas

4-methylpentan-2-one

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	
Inhalation						Not relevant, expert judgement	

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	

The study on skin sensitisation does not need to be conducted as the substance is a gas

butanone

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

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	

titanium dioxide

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	

Conclusion

Not classified as sensitizing for inhalation
Not classified as sensitizing for skin

Specific target organ toxicity

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available
Classification is based on the relevant ingredients
dimethyl ether

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (vapours)	NOAEC systemic effects	Equivalent to OECD 452	47106 mg/m³		No adverse systemic effects	2 year(s) (6h / day, 5 days / week)	Rat (male / female)	Experimental value

As the substance is a gas, inhalation is the most likely route of exposure

4-methylpentan-2-one

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	250 mg/kg bw/day	Kidney	No effect	90 day(s)	Rat (male / female)	Experimental value
Oral (stomach tube)	NOEL	Equivalent to OECD 408	50 mg/kg bw/day		No effect	90 day(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	1840 mg/m³	Kidney	No effect	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

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 week(s)	Rat (male)	Experimental value
Inhalation (vapours)	Dose level	Human observation study	361 ppm	Central nervous system	neurotoxic effects	2 day(s)	Human	Epidemiological study

petroleum gases, liquefied

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Inhalation (gases)	NOAEC	Equivalent to OECD 413	10000 ppm			13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (gases)	NOAEC	OECD 422	4000 ppm			4 weeks (6h / day, 7 days / week) - 6 weeks (6h / day, 7 days / week)	Rat (male / female)	Literature study
Inhalation (gases)	NOAEC	OECD 422	12000 ppm		Weight changes	4 weeks (6h / day, 7 days / week) - 6 weeks (6h / day, 7 days / week)	Rat (male / female)	Literature study
Inhalation (gases)	NOAEC	OECD 413			neurotoxic effects	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (gases)	NOAEL	Human observation study	1000 ppm			2 weeks (5 days / week)	Human (male / female)	Read-across

butanone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 413	5041 ppm		No effect	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)			STOT SE cat.3	Central nervous system	Drowsiness, dizziness			Annex VI

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

titanium dioxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOEL	OECD 407	24000 mg/kg bw/day		No effect	29 day(s)	Rat (male)	Experimental value
Dermal								Data waiving
Inhalation (dust)	NOEC	Other	10 mg/m³ air		No effect	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

Conclusion

May cause drowsiness or dizziness.
Not classified for subchronic toxicity

Mutagenicity (in vitro)

NOVAFILL FLEX 2 GREY

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

dimethyl ether

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Experimental value	

4-methylpentan-2-one

Result	Method	Test substrate	Effect	Value determination	Remark
Ambiguous	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

acetone

Result	Method	Test substrate	Effect	Value determination	Remark
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	

petroleum gases, liquefied

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes	No effect	Read-across	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Read-across	
Not applicable	OECD 476	Mouse (lymphoma L5178Y cells)		Read-across	

butanone

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Rat liver cells	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	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	

titanium dioxide

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

Mutagenicity (in vivo)

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

dimethyl ether

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (gases))	Equivalent to OECD 477	3 day(s) - 14 day(s)	Drosophila melanogaster (male)		Experimental value

acetone

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

petroleum gases, liquefied

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 471	13 weeks (6h / day, 5 days / week)	Rat (male / female)		Experimental value
Positive	Equivalent to OECD 478	5 days (6h / day)	Mouse (male)		Read-across
Negative	Drosophila SLRL test (gene mutation)	3 day(s)	Drosophila melanogaster		Read-across

butanone

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	Equivalent to OECD 474		Mouse (male / female)		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

titanium dioxide

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

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

dimethyl ether

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEL	Equivalent to OECD 453	2.5 %	2 year(s) (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

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

petroleum gases, liquefied

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (gases)	NOAEC	Equivalent to OECD 453	10000 ppm	103 weeks (6h / day, 5 days / week)	Rat (male / female)			Read-across
Inhalation (gases)	NOAEC	Equivalent to OECD 453	10000 ppm	103 weeks (6h / day, 5 days / week)	Mouse (male / female)			Read-across
Inhalation (gases)	LOAEC	Equivalent to OECD 453	1000 ppm	105 weeks (6h / day, 5 days / week) - 111 weeks (6h / day, 5 days / week)	Rat (male / female)	Carcinogenicity		Read-across
Oral	LOAEL	Other	50 mg/kg bw/day	103 weeks (5 days / week)	Rat (male / female)	Carcinogenicity		Read-across

titanium dioxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (dust)	NOAEC	OECD 453	5 mg/m³ 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

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Judgement is based on the relevant ingredients

dimethyl ether

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	40000 ppm	10 days (6h / day)	Rat	No effect		Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	5000 ppm	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEL	Investigation reproductive capacity	2.5 %	2 year(s) (6h / day, 5 days / week)	Rat (male / female)	No effect		Experimental value

4-methylpentan-2-one

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	1000 ppm	10 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEL	Equivalent to OECD 414	1000 ppm	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Inhalation (vapours))	NOAEL	Equivalent to OECD 416	2000 ppm	20 days (6h / day) - 91 days (6h / day)	Rat (male / female)	No effect		Experimental value

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		Literature

petroleum gases, liquefied

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	OECD 414	10426 ppm	14 days (6h / day)	Rat	No effect	Foetus	Experimental value
	NOAEC	OECD 422	9000 ppm	19 days (6h / day)	Rat	No effect	Foetus	Read-across
Maternal toxicity	NOAEC	OECD 414	10426 ppm	2 weeks (6h / day, 7 days / week)	Rat (female)	No effect		Experimental value
Effects on fertility	NOAEC	US EPA	10000 ppm	13 weeks (6h / day, 5 days / week)	Rat (male / female)			Experimental value
	NOAEC	OECD 422	3000 ppm	19 days (6h / day)	Rat (male / female)			Read-across
	NOAEC	OECD 422	16000 ppm	19 days (6h / day)	Rat (male / female)			Read-across

butanone

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation)	NOAEC	Equivalent to OECD 414	1002 ppm	10 days (7h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation)	NOAEC	Equivalent to OECD 414	1002 ppm	10 days (7h / day)	Rat (female)	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	Equivalent to OECD 416	1644 mg/kg bw/day - 1771 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

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

titanium dioxide

	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

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVAFILL FLEX 2 GREY

acetone

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

butanone

Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
	Equivalent to OECD 404		Skin	Skin dryness or cracking			Read-across Skin

n-butyl acetate

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

Conclusion

Repeated exposure may cause skin dryness or cracking.

Chronic effects from short and long-term exposure

NOVAFILL FLEX 2 GREY

Dry skin. Cracking of the skin.

SECTION 12: Ecological information

12.1. Toxicity

NOVAFILL FLEX 2 GREY

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

dimethyl ether

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	NEN 6504	> 4100 mg/l	96 h	Poecilia reticulata	Semi-static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	NEN 6501	> 4400 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Lethal
Toxicity algae and other aquatic plants	EC50	ECOSAR v1.00	154.9 mg/l	96 h	Algae			QSAR
Toxicity aquatic micro-organisms	EC10		> 1600 mg/l		Pseudomonas putida	Static system	Fresh water	Literature study; Respiration

4-methylpentan-2-one

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 179 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	> 200 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Lethal
Toxicity algae and other aquatic plants	Toxicity threshold		725 mg/l	8 day(s)	Scenedesmus quadricauda	Static system	Fresh water	No reliable data available; Growth inhibition
Long-term toxicity aquatic crustacea	NOEC	Equivalent to OECD 211	78 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	275 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Growth inhibition

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

petroleum gases, liquefied

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	ECOSAR	24.11 mg/l	96 h	Pisces		Fresh water	Read-across; QSAR
Acute toxicity crustacea	LC50	ECOSAR	14.22 mg/l	48 h	Daphnia sp.		Fresh water	Read-across; QSAR
Toxicity algae and other aquatic plants	EC50	ECOSAR	7.71 mg/l	96 h	Algae		Fresh water	Read-across; QSAR

butanone

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	2993 mg/l	96 h	Pimephales promelas	Static system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	EC50	OECD 202	308 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	1972 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro-organisms	Toxicity threshold	Equivalent to DIN 38412/8	1150 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	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								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

titanium dioxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	> 100 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	LC50	Equivalent to OECD 202	> 500 mg/l	48 h	Daphnia magna	Semi-static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	ErC50	EPA 600/9-78-018	61 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity fish	NOEC	Equivalent to OECD 212	≥ 1000 mg/l	8 day(s)	Danio rerio	Semi-static system	Fresh water	Experimental value; Nominal concentration
Long-term toxicity aquatic crustacea	NOEC	OECD 211	≥ 2.92 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Weight of evidence; GLP

Conclusion

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

12.2. Persistence and degradability

dimethyl ether

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	5 %; Oxygen consumption	28 day(s)	Experimental value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

4-methylpentan-2-one

Biodegradation water

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

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	14.480 h	1.5E6 /cm³	Calculated value

acetone

Biodegradation water

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

petroleum gases, liquefied

Biodegradation water

Method	Value	Duration	Value determination
	100 %	16 day(s)	Read-across

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
	1906 day(s)	5E5 /cm³	Calculated value

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

butanone

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D	98 %; Oxygen consumption	28 day(s)	Experimental value

n-butyl acetate

Biodegradation water

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

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

dimethyl ether

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.10		Experimental value

4-methylpentan-2-one

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 117		1.9	20 °C	Experimental value

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			

petroleum gases, liquefied

Log Kow

Method	Remark	Value	Temperature	Value determination
		2.8	20 °C	Conclusion by analogy

butanone

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 117		0.3	40 °C	Experimental value

n-butyl acetate

Log Kow

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

titanium dioxide

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

dimethyl ether

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	99.5 %		0 %	0.04 %	0.43 %	Calculated value

4-methylpentan-2-one

(log) Koc

Parameter	Method	Value	Value determination
log Koc		2.008	Weight of evidence

acetone

(log) Koc

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

butanone

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.654 - 1.281	Calculated value

n-butyl acetate

(log) Koc

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

Conclusion

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

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

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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)

4-methylpentan-2-one

Groundwater

Groundwater pollutant

acetone

Groundwater

Groundwater pollutant

butanone

Groundwater

Groundwater pollutant

n-butyl acetate

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. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

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. Specific treatment. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

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)

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. Transport in bulk according to Annex II of Marpol and the IBC Code

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:

VOC content Directive 2010/75/EU

VOC content	Remark
57 % - 100 %	

REACH Annex XVII - Restriction

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

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· 4-methylpentan-2-one · acetone · butanone · n-butyl acetate	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. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.'
· dimethyl ether · 4-methylpentan-2-one · acetone · petroleum gases, liquefied · butanone · n-butyl acetate	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, — “whoopee” 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.

National legislation Belgium

NOVAFILL FLEX 2 GREY

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 cancérigènes et mutagènes et reprotoxiques au travail.

National legislation The Netherlands

NOVAFILL FLEX 2 GREY

Waterbezwaarlijkheid	Z (2); Algemene Beoordelingsmethodiek (ABM)

petroleum gases, liquefied

SZW - Lijst van kankerverwekkende stoffen	(complexe) aardolie- en steenkoolderivaten; Listed in SZW-list of carcinogenic substances
SZW - Lijst van mutagene stoffen	aardoliegassen en residuen; Listed in SZW-list of mutagenic substances

butanone

Huidopname (wettelijk)	2-Butanon; H

National legislation France

NOVAFILL FLEX 2 GREY

No data available

butanone

Risque de pénétration percutanée	Méthyléthylcétone; PP

National legislation Germany

NOVAFILL FLEX 2 GREY

WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

dimethyl ether

TA-Luft	5.2.5

4-methylpentan-2-one

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	4-Methylpentan-2-on; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Hautresorptive Stoffe	4-Methylpentan-2-on; H; Hautresorptiv

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

petroleum gases, liquefied

TA-Luft	5.2.5/I

butanone

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

titanium dioxide

TA-Luft	5.2.1

National legislation United Kingdom

NOVAFILL FLEX 2 GREY

No data available

4-methylpentan-2-one

Skin absorption	4-Methylpentan-2-one; Sk

petroleum gases, liquefied

Carcinogen	Liquefied petroleum gas; Carc

butanone

Skin absorption	Butan-2-one (methyl ethyl ketone); Sk

Other relevant data

NOVAFILL FLEX 2 GREY

No data available

4-methylpentan-2-one

TLV - Carcinogen	Methyl isobutyl ketone; A3
IARC - classification	2B; Methyl isobutyl ketone

acetone

TLV - Carcinogen	Acetone; A4

kaolin

TLV - Carcinogen	Kaolin; A4

titanium dioxide

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

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H-statements referred to under heading 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.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
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
vPvB	very Persistent & very Bioaccumulative

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