SAFETY DATA SHEET

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

NOVALU 100 AEROSOL

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

1.1. Product identifier

Product name : NOVALU 100 AEROSOL
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

Lacquer/varnish
Coating
Anti-corrosion agent

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 Sens.	category 1	H317: May cause an allergic skin reaction.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H336: May cause drowsiness or dizziness.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.2. Label elements

Contains: acetone; ethyl acetate; hydrocarbons, C9, aromatics; n-butyl acetate; fatty acids, C14-18 and C16-18-unsatd., maleated; methyl methacrylate; n-butyl methacrylate; maleic anhydride.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

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 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

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 List No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
acetone 01-2119471330-49	67-64-1 200-662-2	10% ≤C≤25%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
propane 01-2119486944-21	74-98-6 200-827-9	10% ≤C≤25%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)	Propellant	
ethyl acetate 01-2119475103-46	141-78-6 205-500-4	10% ≤C≤25%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
butane 01-2119474691-32	106-97-8 203-448-7	10% ≤C≤25%	Flam. Gas 1A; H220 Press. Gas - Liquefied gas; H280	(1)(2)(10)(21)	Propellant	
hydrocarbons, C9, aromatics 01-2119455851-35	128601-23-0 918-668-5	C≤10%	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335 STOT SE 3; H336 Aquatic Chronic 2; H411 EUH066	(1)(10)	Constituent	
xylene 01-2119488216-32	1330-20-7 215-535-7	C≤9.3%	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	
aluminium powder 01-2119529243-45	7429-90-5 231-072-3	C≤10%	Flam. Sol. 1; H228 Water-react. 2; H261	(1)(2)(10)	Constituent	
n-butyl acetate 01-2119485493-29	123-86-4 204-658-1	C≤10%	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics 01-2119457273-39	918-481-9	C≤10%	Asp. Tox. 1; H304 EUH066	(1)(10)	Constituent	
fatty acids, C14-18 and C16-18-unsatd., maleated 01-2119978273-29	85711-46-2 288-306-2	C<1%	Skin Sens. 1B; H317 Skin Irrit. 2; H315 Eye Irrit. 2; H319	(1)(10)	Constituent	
methyl methacrylate 01-2119452498-28	80-62-6 201-297-1	C<1%	Flam. Liq. 2; H225 Skin Sens. 1; H317 Skin Irrit. 2; H315 STOT SE 3; H335	(1)(2)(10)	Constituent	

n-butyl methacrylate 01-2119486394-28	97-88-1 202-615-1	C<1%	Flam. Liq. 3; H226 Skin Sens. 1; H317 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	(1)(2)(10)	Constituent	
maleic anhydride 01-2119472428-31	108-31-6 203-571-6	C≤0.1%	Resp. Sens. 1; H334 Skin Sens. 1A; H317 STOT RE 1; H372 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 EUH071 Skin Sens. 1A; H317: C≥0,001%, (CLP Annex VI (ATP 13))	(1)(2)(10)	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
(21) 1,3-butadiene <0.1%
Note: numbers 9xx-xxx-x are provisional list numbers assigned by Echa pending an official EC inventory number

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:
EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression. Headache. Dizziness. Disturbances of consciousness.

After skin contact:
ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking 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: persistant risk of physical explosion. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves (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

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 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. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe very strict hygiene - avoid contact.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

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

7.2.2 Keep away from:

Heat sources, ignition sources, combustible materials.

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

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
Ethyl acetate	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)	734 mg/m³
	Short time value (Indicative occupational exposure limit value)	400 ppm
	Short time value (Indicative occupational exposure limit value)	1468 mg/m³
Methyl methacrylate	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	50 ppm
	Short time value (Indicative occupational exposure limit value)	100 ppm
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

n-Butyl acetate	Short time value (Indicative occupational exposure limit value)	150 ppm
	Short time value (Indicative occupational exposure limit value)	723 mg/m³
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/m³
	Short time value (Indicative occupational exposure limit value)	100 ppm
	Short time value (Indicative occupational exposure limit value)	442 mg/m³

Belgium

Acétate d'éthyle	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	734 mg/m³
	Short time value	400 ppm
	Short time value	1468 mg/m³
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/m³
	Short time value	150 ppm
	Short time value	712 mg/m³
Acétone	Time-weighted average exposure limit 8 h	246 ppm
	Time-weighted average exposure limit 8 h	594 mg/m³
	Short time value	492 ppm
	Short time value	1187 mg/m³
Aluminium (métal et composés insolubles, fraction alvéolaire)	Time-weighted average exposure limit 8 h	1 mg/m³
Anhydride maléique (vapeur et aerosol)	Time-weighted average exposure limit 8 h	0.0025 ppm
	Time-weighted average exposure limit 8 h	0.01 mg/m³
Butane, tous isomères: n-butane	Short time value	980 ppm
	Short time value	2370 mg/m³
Hydrocarbures aliphatiques sous forme gazeuse: (Alcanes C1-C3)	Time-weighted average exposure limit 8 h	1000 ppm
Méthacrylate de méthyle	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	208 mg/m³
	Short time value	100 ppm
	Short time value	416 mg/m³
Xylène, isomères mixtes, purs	Time-weighted average exposure limit 8 h	50 ppm
	Time-weighted average exposure limit 8 h	221 mg/m³
	Short time value	100 ppm
	Short time value	442 mg/m³

The Netherlands

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/m³
	Short time value (Public occupational exposure limit value)	1002 ppm
	Short time value (Public occupational exposure limit value)	2420 mg/m³
Ethylacetaat	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	200 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	734 mg/m³
	Short time value (Public occupational exposure limit value)	400 ppm
	Short time value (Public occupational exposure limit value)	1468 mg/m³
Methylmethacrylaat	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	49.2 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	205 mg/m³
	Short time value (Public occupational exposure limit value)	98.5 ppm
	Short time value (Public occupational exposure limit value)	410 mg/m³
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/m³
	Short time value (Public occupational exposure limit value)	150 ppm
	Short time value (Public occupational exposure limit value)	723 mg/m³
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/m³

Xyleen, o-, m-, p-isomeren	Short time value (Public occupational exposure limit value)	100 ppm
	Short time value (Public occupational exposure limit value)	442 mg/m³

France

Acétate de n-butyle	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	241 mg/m³
	Short time value (VL: Valeur non réglementaire indicative)	150 ppm
	Short time value (VL: Valeur non réglementaire indicative)	723 mg/m³
Acétate d'éthyle	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	200 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	734 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	400 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	1468 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
Aluminium (métal)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	10 mg/m³
Aluminium (pulvérulent)	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	5 mg/m³
Anhydride maléique	Short time value (VL: Valeur non réglementaire indicative)	1 mg/m³
Méthacrylate de méthyle	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	50 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	205 mg/m³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	410 mg/m³
n-Butane	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	800 ppm
	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	1900 mg/m³
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/m³
	Short time value (VRC: Valeur réglementaire contraignante)	100 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	442 mg/m³

Germany

Aceton	Time-weighted average exposure limit 8 h (TRGS 900)	500 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1200 mg/m³
Butan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m³
Ethylacetat	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	730 mg/m³
Maleinsäureanhydrid	Time-weighted average exposure limit 8 h (TRGS 900)	0.02 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	0.081 mg/m³
Methyl-methacrylat	Time-weighted average exposure limit 8 h (TRGS 900)	50 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	210 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
Propan	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1800 mg/m³
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/m³

Austria

Aceton	Tagesmittelwert (MAK)	500 ppm
	Tagesmittelwert (MAK)	1200 mg/m³
	Kurzzeitwert 15(Miw) 4x (MAK)	2000 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	4800 mg/m³
Aluminium (als Metall) AluminiumoxidundAluminiumhydroxid	Tagesmittelwert	10 mg/m³

Aluminium (als Metall) AluminiumoxidundAluminiumhydroxid	Tagesmittelwert	5 mg/m³
	Kurzzeitwert 60(Miw) 2x	10 mg/m³
	Kurzzeitwert 60(Miw) 2x	20 mg/m³
Butan (beide Isomeren): n-Butan (R 600) Isobutan (R 600a)	Tagesmittelwert (MAK)	800 ppm
	Tagesmittelwert (MAK)	1900 mg/m³
	Kurzzeitwert 60(Mow) 3x (MAK)	1600 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3800 mg/m³
Butylacetat alle Isomere (außer tert-Butylacetat): Isobutylacetat n-Butylacetat sec-Butylacetat	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	241 mg/m³
	Kurzzeitwert Mow (MAK)	100 ppm
	Kurzzeitwert Mow (MAK)	480 mg/m³
Ethylacetat	Tagesmittelwert (MAK)	200 ppm
	Tagesmittelwert (MAK)	734 mg/m³
	Kurzzeitwert 15(Miw) 4x (MAK)	400 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	1468 mg/m³
Maleinsäureanhydrid	Tagesmittelwert (MAK)	0.1 ppm
	Tagesmittelwert (MAK)	0.4 mg/m³
	Kurzzeitwert 5(Mow) 8x (MAK)	0.2 ppm
	Kurzzeitwert 5(Mow) 8x (MAK)	0.8 mg/m³
Methylmethacrylat	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	210 mg/m³
	Kurzzeitwert 5(Mow) 8x (MAK)	100 ppm
	Kurzzeitwert 5(Mow) 8x (MAK)	420 mg/m³
Propan (R 290)	Tagesmittelwert (MAK)	1000 ppm
	Tagesmittelwert (MAK)	1800 mg/m³
	Kurzzeitwert 60(Mow) 3x (MAK)	2000 ppm
	Kurzzeitwert 60(Mow) 3x (MAK)	3600 mg/m³
Xylol (alle Isomeren): o-Xylol,m-Xylol p-Xylol	Tagesmittelwert (MAK)	50 ppm
	Tagesmittelwert (MAK)	221 mg/m³
	Kurzzeitwert 15(Miw) 4x (MAK)	100 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	442 mg/m³

UK

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
Aluminium metal inhalable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	10 mg/m³
Aluminium metal respirable dust	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	4 mg/m³
Butane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	600 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1450 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	750 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1810 mg/m³
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
Ethyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	200 ppm

Ethyl acetate	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	734 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	400 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1468 mg/m³
Maleic anhydride	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 mg/m³
	Short time value (Workplace exposure limit (EH40/2005))	3 mg/m³
Methyl methacrylate	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
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/m³
	Short time value (Workplace exposure limit (EH40/2005))	100 ppm
	Short time value (Workplace exposure limit (EH40/2005))	441 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
Aluminium metal and insoluble compounds	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m³ (R)
Butane, isomers	Short time value (TLV - Adopted Value)	1000 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 acetate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	400 ppm
Maleic anhydride	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.01 mg/m³ (IFV)
Methyl methacrylate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	50 ppm
	Short time value (TLV - Adopted Value)	100 ppm
Xylene (all isomers)	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	20 ppm

(R): Respirable fraction
(IFV): Inhalable fraction and vapor

b) National biological limit values

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

Germany

Aceton (Aceton)	Urin: expositionsende, bzw. schichtende	80 mg/l	
Aluminium (Aluminium)	Urin: bei langzeitexposition: am schichtende nach mehreren vorangegangenen schichten	50 µg/g Kreatinin	
Xylol (alle isomeren) (Methylhippur-(Tolur-) säure (alle isomere))	Urin: expositionsende, bzw. schichtende	2000 mg/l	

UK

Xylene, o-, m-, p- or mixed isomers (methyl hippuric acid)	Urine: post shift	650 mmol/mol creatinine	

USA (BEI-ACGIH)

Acetone (Acetone)	Urine: end of shift	25 mg/L	Nonspecific
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
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
Aluminium	NIOSH	7013
Aluminum (Al)	NIOSH	7302
Aluminum (Al)	NIOSH	7304
Aluminum (Al)	NIOSH	7306
Aluminum (Al)	NIOSH	8310
Aluminum (Elements)	NIOSH	7300
Aluminum (Elements, aqua regia ashing)	NIOSH	7301
Aluminum (Elements, hot block/HCl/HNO3 digestion)	NIOSH	7303
Aluminum	OSHA	ID121
Butyl acetate (Volatile Organic compounds)	NIOSH	2549
Ethyl acetate (Volatile Organic compounds)	NIOSH	2549

Product name	Test	Number
Ethyl Acetate	NIOSH	1457
Ethyl Acetate	OSHA	7
Maleic Anhydride	NIOSH	3512
Maleic Anhydride	OSHA	25
Maleic Anhydride	OSHA	86
Methyl ester of methacrylic acid	NIOSH	2537
Methyl Methacrylate	NIOSH	2537
Methyl Methacrylate	NON	36
Methyl Methacrylate	OSHA	94
n-Butyl Acetate (Esters I)	NIOSH	1450
n-Butyl Acetate	OSHA	1009
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/m³	
	Acute local effects inhalation	2420 mg/m³	
	Long-term systemic effects dermal	186 mg/kg bw/day	

ethyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	1468 mg/m³	
	Acute local effects inhalation	1468 mg/m³	
	Long-term systemic effects dermal	63 mg/kg bw/day	
	Long-term systemic effects inhalation	734 mg/m³	
	Long-term local effects inhalation	734 mg/m³	

hydrocarbons, C9, aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	150 mg/m³	
	Long-term systemic effects dermal	25 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	221 mg/m³	
	Acute systemic effects inhalation	442 mg/m³	
	Long-term local effects inhalation	221 mg/m³	
	Acute local effects inhalation	442 mg/m³	
	Long-term systemic effects dermal	212 mg/kg bw/day	

aluminium powder

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.72 mg/m³	
	Long-term local effects inhalation	3.72 mg/m³	

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	

fatty acids, C14-18 and C16-18-unsatd., maleated

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	3.33 mg/kg bw/day	

methyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	348.4 mg/m³	
	Long-term local effects inhalation	208 mg/m³	
	Acute local effects inhalation	416 mg/m³	
	Long-term systemic effects dermal	13.67 mg/kg bw/day	
	Long-term local effects dermal	1.5 mg/cm²	
	Acute local effects dermal	1.5 mg/cm²	

n-butyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	415.9 mg/m³	
	Long-term local effects inhalation	409 mg/m³	
	Long-term systemic effects dermal	5 mg/kg bw/day	
	Long-term local effects dermal	1 %	
	Acute local effects dermal	1 %	

DNEL/DMEL - General population

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	

ethyl acetate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Acute systemic effects inhalation	734 mg/m³	
	Acute local effects inhalation	734 mg/m³	
	Long-term systemic effects dermal	37 mg/kg bw/day	
	Long-term systemic effects inhalation	367 mg/m³	
	Long-term systemic effects oral	4.5 mg/kg bw/day	
	Long-term local effects inhalation	367 mg/m³	

hydrocarbons, C9, aromatics

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	32 mg/m³	
	Long-term systemic effects dermal	11 mg/kg bw/day	
	Long-term systemic effects oral	11 mg/kg bw/day	

xylene

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	65.3 mg/m³	
	Acute systemic effects inhalation	260 mg/m³	
	Long-term local effects inhalation	65.3 mg/m³	
	Acute local effects inhalation	260 mg/m³	
	Long-term systemic effects dermal	125 mg/kg bw/day	
	Long-term systemic effects oral	12.5 mg/kg bw/day	

aluminium powder

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects oral	7.9 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	

fatty acids, C14-18 and C16-18-unsatd., maleated

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects dermal	1.67 mg/kg bw/day	
	Long-term systemic effects oral	1.67 mg/kg bw/day	

methyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	74.3 mg/m³	
	Long-term local effects inhalation	104 mg/m³	
	Acute local effects inhalation	208 mg/m³	
	Long-term systemic effects dermal	8.2 mg/kg bw/day	
	Long-term local effects dermal	1.5 mg/cm²	
	Acute local effects dermal	1.5 mg/cm²	
	Long-term systemic effects oral	8.2 mg/kg bw/day	

n-butyl methacrylate

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	66.5 mg/m³	
	Long-term local effects inhalation	366.4 mg/m³	
	Long-term systemic effects dermal	3 mg/kg bw/day	
	Long-term local effects dermal	1 %	
	Acute local effects dermal	1 %	

PNEC

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	

ethyl acetate

Compartments	Value	Remark
Fresh water	0.24 mg/l	
Marine water	0.024 mg/l	
Aqua (intermittent releases)	1.65 mg/l	
STP	650 mg/l	
Fresh water sediment	1.15 mg/kg sediment dw	
Marine water sediment	0.115 mg/kg sediment dw	
Soil	0.148 mg/kg soil dw	
Oral	0.2 g/kg food	

xylene

Compartments	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	

aluminium powder

Compartments	Value	Remark
Fresh water	74.9 µg/l	
STP	20 mg/l	

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	

fatty acids, C14-18 and C16-18-unsatd., maleated

Compartments	Value	Remark
STP	100 mg/l	

methyl methacrylate

Compartments	Value	Remark
Fresh water	0.94 mg/l	
Fresh water (intermittent releases)	0.94 mg/l	
Marine water	0.094 mg/l	
STP	10 mg/l	
Fresh water sediment	10.2 mg/kg sediment dw	
Marine water sediment	0.102 mg/kg soil dw	
Soil	1.48 mg/kg soil dw	

n-butyl methacrylate

Compartments	Value	Remark
Fresh water	0.017 mg/l	
Fresh water (intermittent releases)	0.056 mg/l	
Marine water	0.002 mg/l	
STP	31.7 mg/l	
Fresh water sediment	4.73 mg/kg sediment dw	
Marine water sediment	0.473 mg/kg sediment dw	
Soil	0.935 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. 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 very strict hygiene - avoid contact. 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).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 480 minutes	0.7 mm	Class 6	

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	Characteristic odour
Odour threshold	No data available in the literature
Colour	Silvery-grey
Particle size	Not applicable (mixture)
Explosion limits	No data available in the literature
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	-44 °C
Relative vapour density	> 1
Vapour pressure	No data available in the literature
Solubility	No data available in the literature
Relative density	No data available in the literature
Absolute density	No data available in the literature
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	No data available in the literature

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

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

Combustible materials.

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

NOVALU 100 AEROSOL

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)		

ethyl acetate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	4934 mg/kg bw		Rabbit (male / female)	Experimental value	
Dermal	LD50	24 hour cuff method	> 20000 mg/kg bw		Rabbit (male)	Experimental value	
Inhalation	LC50	Other	> 22.5 mg/l	6 h	Rat (male / female)	Experimental value	

hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		> 6984 mg/kg bw		Rat (male)	Experimental value	
Oral	LD50		3492 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 6.19 mg/l air	4 h	Rat (male / female)	Experimental value	(maximum achievable concentration)

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 (vapours)			category 4			Annex VI	

aluminium powder

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	> 15900 mg/kg bw		Rat (male / female)	Read-across	
Dermal						Data waiving	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 0.89 mg/l air	4 h	Rat (male)	Experimental value	

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	

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	> 5000 mg/kg bw		Rat (male / female)	Read-across	
Dermal	LD50	Equivalent to OECD 402	> 3160 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 6.1 mg/l air	4 h	Rat (male / female)	Experimental value	
Inhalation (aerosol)	LC50	Equivalent to OECD 403	> 5.6 mg/l	4 h	Rat (male)	Read-across	

fatty acids, C14-18 and C16-18-unsatd., maleated

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	> 2000 mg/kg bw		Rat (female)	Read-across	
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male / female)	Experimental value	
Inhalation						Data waiving	

methyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		9400 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD50	Equivalent to OECD 402	> 5000 mg/kg bw	24 h	Rabbit (male)	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	29.8 mg/l air	4 h	Rat (male / female)	Experimental value	

n-butyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD0	OECD 401	≥ 2000 mg/kg bw		Rat (male / female)	Experimental value	
Dermal	LD0	OECD 402	≥ 2000 mg/kg bw	24 h	Rabbit (male / female)	Experimental value	
Inhalation	Min LD	OECD 403	29 mg/l air	4 h	Rat (male / female)	Experimental value	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

NOVALU 100 AEROSOL

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	Experimental value	
Inhalation	Slightly irritating	Human observation study	20 minutes		Human	Literature study	

ethyl 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	
Eye	Not irritating	Human observation	4 h		Human	Experimental value	
Eye	Irritating; category 2					Annex VI	
Dermal	Slightly irritating	Equivalent to OECD 404		24; 48; 72 hours	Rabbit	Experimental value	
Dermal	Not irritating	Patch test	4 week(s)		Human	Experimental value	
Inhalation	Slightly irritating	Human observation	4 h		Human	Experimental value	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

hydrocarbons, C9, aromatics

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Equivalent to OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	
Skin	Slightly irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	
Inhalation (vapours)	Irritating; STOT SE cat.3					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
Eye	Irritating; category 2					Annex VI	
Skin	Moderately irritating		24 h	24; 72 hours	Rabbit	Experimental value	
Skin	Irritating; category 2					Annex VI	
Inhalation (vapours)	Irritating		4 h		Human	Read-across	
Inhalation (vapours)	Irritating; STOT SE cat.3					Annex VI	

aluminium powder

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating	Draize Test		24; 48; 72 hours	Rabbit	Read-across	
Skin	Not irritating	Equivalent to OECD 404	24 h	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	

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

fatty acids, C14-18 and C16-18-unsatd., maleated

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405		24; 72 hours	Rabbit	Read-across	
Skin	Irritating	OECD 404	4 h	24; 72 hours	Rabbit	Read-across	

methyl methacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Not irritating			24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Irritating		4 h	24; 72 hours	Rabbit	Experimental value	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

n-butyl methacrylate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating; category 2					Annex VI	
Eye	Slightly irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Irritating		24 h	24; 72 hours	Rabbit	Experimental value	
Inhalation	Irritating; STOT SE cat.3					Annex VI	

Conclusion

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

Respiratory or skin sensitisation

NOVALU 100 AEROSOL

No (test)data on the mixture available

Classification 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	

ethyl acetate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (female)	Experimental value	

hydrocarbons, C9, aromatics

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

aluminium powder

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing				Guinea pig (male)	Read-across	
Intratracheal instillation	Not sensitizing				Mouse (male)	Read-across	

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	

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

fatty acids, C14-18 and C16-18-unsatd., maleated

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406		24; 48 hours	Guinea pig	Read-across	

methyl methacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Dermal (on the ears)	Sensitizing	Equivalent to OECD 429			Mouse	Experimental value	

n-butyl methacrylate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 429			Mouse (female)	Experimental value	
Skin	Sensitizing	OECD 406			Guinea pig (male / female)	Experimental value	

maleic anhydride

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	Equivalent to OECD 429			Mouse (female)	Experimental value	

Conclusion

May cause an allergic skin reaction.
Not classified as sensitizing for inhalation

Specific target organ toxicity

NOVALU 100 AEROSOL

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	Histopatholog y		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

ethyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral	NOAEL	Equivalent to OECD 410	900 mg/kg bw/day		No effect	90 day(s) - 92 day(s)	Rat (male / female)	Experimental value
Inhalation	LOEC	Equivalent to OECD 413	350 ppm		Nasal irritation	94 day(s)	Rat (male / female)	Experimental value

hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	Equivalent to OECD 408	600 mg/kg bw/day		No effect	13 weeks (daily)	Rat (male / female)	Read-across
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Equivalent to OECD 452	1800 mg/m³ air		No effect	52 weeks (6h / day, 5 days / week)	Rat (male)	Read-across
Inhalation (vapours)	NOAEC	Equivalent to OECD 452	900 mg/m³ air		No effect	52 weeks (6h / day, 5 days / week)	Rat (female)	Read-across
Inhalation (vapours)			STOT SE cat.3		Drowsiness, dizziness			Literature 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/m³		No effect	13 weeks (6h / day, 5 days / week)	Rat (male)	Experimental value

aluminium powder

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect	28 day(s) - 53 day(s)	Rat (male / female)	Read-across
Inhalation (dust)	LOAEC	Equivalent to OECD 413	50 mg/m³ air	Lungs	Lung tissue affection/degeneration	25 weeks (6h / day, 5 days / week) - 52 weeks (6h / day, 5 days / week)	Rat	Experimental value

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	EPA OPP 82-1	≥ 500 mg/kg bw/day		No effect	13 weeks (7 days / week)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC systemic effects	Equivalent to OECD 413	6000 mg/m³ air		No adverse systemic effects	13 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

fatty acids, C14-18 and C16-18-unsatd., maleated

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1000 mg/kg bw/day		No effect		Rat (male / female)	Read-across

methyl methacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL		≥ 124.1 mg/kg bw/day		No effect	104 week(s)	Rat (male)	Experimental value
Oral (drinking water)	NOAEL		≥ 164 mg/kg bw/day		No effect	104 week(s)	Rat (female)	Experimental value
Inhalation (vapours)	NOAEC systemic effects	Equivalent to OECD 453	1640 mg/m³ air		No adverse systemic effects	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	LOAEC local effects	Equivalent to OECD 453	416 mg/m³ air	Nose	Affection of the nasal septum	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	NOAEC local effects	Equivalent to OECD 453	104 mg/m³ air	Nose	No effect	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

n-butyl methacrylate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 408	120 mg/kg bw/day	Liver; kidney	No effect	3 month(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation (aerosol)	NOAEC local effects	OECD 412	310 ppm	Nose	No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (aerosol)	NOAEC systemic effects	OECD 412	1891 ppm		No adverse systemic effects	4 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)

NOVALU 100 AEROSOL

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	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	

ethyl acetate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative	Equivalent to OECD 471	Bacteria (S.typhimurium)		Experimental value	

hydrocarbons, C9, aromatics

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

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	

aluminium powder

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Read-across	
Positive without metabolic activation	Equivalent to OECD 473	Human lymphocytes		Read-across	

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	

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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	Equivalent to OECD 473	Human lymphocytes	No effect	Experimental value	

fatty acids, C14-18 and C16-18-unsatd., maleated

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

methyl methacrylate

Result	Method	Test substrate	Effect	Value determination	Remark
Ambiguous	Equivalent to OECD 473	Chinese hamster ovary (CHO)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Literature study	

n-butyl methacrylate

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts (V79)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S. typhimurium and E. coli)	No effect	Experimental value	

Mutagenicity (in vivo)

NOVALU 100 AEROSOL

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

ethyl acetate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	Equivalent to OECD 474		Hamster (male / female)		Experimental value

hydrocarbons, C9, aromatics

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	Equivalent to OECD 475	5 days (6h / day)	Rat (male)	Bone marrow	Experimental value

xylene

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

aluminium powder

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 474	2 dose(s)/24-hour interval	Rat (male / female)	Bone marrow	Read-across

n-butyl acetate

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

fatty acids, C14-18 and C16-18-unsatd., maleated

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

methyl methacrylate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Inhalation (vapours))	Equivalent to OECD 478	5 days (6h / day)	Mouse (male)		Experimental value

n-butyl methacrylate

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

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

NOVALU 100 AEROSOL

No (test)data on the mixture available

Judgement is based on the relevant ingredients

acetone

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

hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Unknown								Data waiving

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

aluminium powder

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (dust)	LOAEC	Equivalent to OECD 413	15 mg/m³ air	52 weeks (6h / day, 5 days / week)	Rat	Lung tissue affection/degeneration	Lungs	Experimental value

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 453	≥ 2200 mg/m³ air	105 weeks (6h / day, 5 days / week)	Rat (female)	No carcinogenic effect		Read-across

methyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	≥ 2.05 mg/l air	102 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 90.3 mg/kg bw/day	104 weeks (daily)	Rat (male)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 193.8 mg/kg bw/day	104 weeks (daily)	Rat (female)	No carcinogenic effect		Experimental value

n-butyl methacrylate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	≥ 2.05 mg/l air	102 weeks (6h / day, 5 days / week)	Rat (female)	No carcinogenic effect		Experimental value
Inhalation (vapours)	NOAEC	Equivalent to OECD 451	≥ 4.1 mg/l air	102 weeks (6h / day, 5 days / week)	Rat (male)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 90.3 mg/kg bw/day	104 weeks (daily)	Rat (male)	No carcinogenic effect		Experimental value
Oral (drinking water)	NOAEL	Carcinogenic toxicity study	≥ 193.8 mg/kg bw/day	104 weeks (daily)	Rat (female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

NOVALU 100 AEROSOL

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

ethyl acetate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEC	Equivalent to OECD 414	73300 mg/m³	1 days (gestation, daily) - 19 days (gestation, daily)	Rat	Histopathological changes	General	Read-across
	NOAEL	Equivalent to OECD 414	> 3600 mg/kg bw/day	8 days (gestation, daily) - 14 days (gestation, daily)	Mouse	No effect		Read-across
Effects on fertility	NOAEL	Equivalent to OECD 416	26400 mg/kg bw/day	18 week(s)	Mouse (male / female)	No effect	General	Read-across

hydrocarbons, C9, aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Developmental toxicity study	100 ppm	10 days (6h / day)	Mouse	No effect		Experimental value
	LOAEC	Developmental toxicity study	500 ppm	10 days (6h / day)	Mouse	Reduced fetal bodyweights	Foetus	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEC	Developmental toxicity study	100 ppm	10 day(s)	Mouse	No effect		Experimental value
	LOAEC	Developmental toxicity study	500 ppm	10 day(s)	Mouse	Body weight reduction	General	Experimental value
Effects on fertility (Inhalation (vapours))	NOAEC	3 generation study	7500 mg/m³		Rat (male / female)	No effect		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

aluminium powder

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	266 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	266 mg/kg bw/day	10 day(s)	Rat	No effect		Read-across
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day	28 day(s) - 53 day (s)	Rat (male / female)	No effect		Read-across

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	Equivalent to OECD 414	≥ 5220 mg/m³ air	10 days (gestation, daily)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEC	Equivalent to OECD 414	≥ 5220 mg/m³ air	10 day(s)	Rat	No effect		Experimental value

fatty acids, C14-18 and C16-18-unsatd., maleated

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day		Rat	Degeneration of heart tissue		Read-across
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day		Rat	No effect		Read-across
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 422	1000 mg/kg bw/day		Rat (male / female)	No effect		Read-across

methyl methacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (vapours))	NOAEC	OECD 414	8.44 mg/l air	10 days (6h / day)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Inhalation (vapours))	NOAEC	OECD 414	8.44 mg/l air	10 days (6h / day)	Rat	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL	OECD 416	400 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

n-butyl methacrylate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	300 mg/kg bw/day	23 day(s)	Rabbit	No effect	Foetus	Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	100 mg/kg bw/day	23 day(s)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (stomach tube))	NOAEL (P/F1)	OECD 416	400 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

NOVALU 100 AEROSOL

acetone

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

ethyl acetate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
	NOAEC	Equivalent to OECD 424	750 ppm		neurotoxic effects	99 day(s) - 100 day (s)	Rat (male / female)	Experimental value

hydrocarbons, C9, aromatics

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
				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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

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

Conclusion

Repeated exposure may cause skin dryness or cracking.

Chronic effects from short and long-term exposure

NOVALU 100 AEROSOL

Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

NOVALU 100 AEROSOL

No (test)data on the mixture available

Classification is based on the relevant ingredients

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
	EC50		1700 mg/l		Pseudomonas putida			Literature study; Inhibition

ethyl acetate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	US EPA	230 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Acute toxicity crustacea	EC50		165 mg/l	48 h	Daphnia magna		Fresh water	Experimental value
Toxicity algae and other aquatic plants	LC50	DIN 38412-9	5600 mg/l	48 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value
Acute toxicity other aquatic organisms	LC50		180 mg/l	48 h	Xenopus laevis		Fresh water	Experimental value
Long-term toxicity fish	NOEC	Equivalent to OECD 212	< 9.65 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value
Long-term toxicity aquatic crustacea	NOEC		2.4 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	Toxicity threshold	Equivalent to DIN 38412/8	650 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value

hydrocarbons, C9, aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	9.2 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EL50	OECD 202	3.2 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EL50	OECD 201	2.9 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	0.07 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity fish	NOELR		1.228 mg/l	28 day(s)	Oncorhynchus mykiss		Fresh water	QSAR
Long-term toxicity aquatic crustacea	NOELR		2.144 mg/l	21 day(s)	Daphnia magna		Fresh water	QSAR

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
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	OECD 209	> 157 mg/l	3 h	Activated sludge	Static system	Fresh water	Read-across; GLP

aluminium powder

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	EC0		> 100 mg/l	96 h	Salmo trutta			Literature study; Nominal concentration
Toxicity algae and other aquatic plants	EC0		> 100 mg/l	72 h	Selenastrum capricornutum			Literature study; Nominal concentration

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LL50	OECD 203	> 1000 mg/l	96 h	Oncorhynchus mykiss	Semi-static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EL50	OECD 202	> 1000 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EL50	OECD 201	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	NOELR	OECD 201	1000 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EL50		> 1000 mg/l	48 h	Tetrahymena pyriformis		Fresh water	QSAR

fatty acids, C14-18 and C16-18-unsatd., maleated

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	> 100 mg/l	96 h	Danio rerio	Static system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	> 100 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	> 100 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea								Data waiving
Toxicity aquatic micro-organisms	EC10	OECD 209	> 1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental value; GLP

methyl methacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		> 100 mg/l		Pisces			Literature study
Acute toxicity crustacea	EC50	EPA OTS 797.1300	69 mg/l	48 h	Daphnia magna	Flow-through system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	EC50	OECD 201	> 110 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
	NOEC	OECD 201	110 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	37 mg/l	21 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value; Reproduction
Toxicity aquatic micro-organisms	Dose level	OECD 301C	100 mg/l	14 day(s)	Activated sludge	Static system	Fresh water	Experimental value
	EC50		> 178 mg/l	48 h	Chilomas sp.			Literature study

n-butyl methacrylate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	11 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; GLP
Acute toxicity crustacea	EC50	OECD 202	25.4 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	EC50	OECD 201	31.2 mg/l	72 h	Pseudokirchneriella subcapitata	Static system		Experimental value; Growth rate
	NOEC	OECD 201	24.8 mg/l	72 h	Pseudokirchneriella subcapitata	Static system		Experimental value; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	1.1 mg/l	21 day(s)	Daphnia magna		Fresh water	Experimental value; Reproduction

Conclusion

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

acetone

Biodegradation water

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

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	52.431 day(s)	1.5E6 /cm³	Calculated value

ethyl acetate

Biodegradation water

Method	Value	Duration	Value determination
	69 %; Oxygen consumption	20 day(s)	Experimental value

hydrocarbons, C9, aromatics

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	78 %	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 /cm³	Read-across

Biodegradation soil

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

n-butyl acetate

Biodegradation water

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Biodegradation water

Method	Value	Duration	Value determination
OECD 301F	80 %; GLP	28 day(s)	Read-across

Biodegradation soil

Method	Value	Duration	Value determination
Equivalent to OECD 304A	59.7 % - 62.6 %; Oxygen consumption	61 day(s)	Read-across

fatty acids, C14-18 and C16-18-unsatd., maleated

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	30 % - 40 %; GLP	28 day(s)	Experimental value

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
			Data waiving

methyl methacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C	94 %; Oxygen consumption	14 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	6.997 h	1.5E6 /cm³	QSAR

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	53 month(s); pH = 7		Experimental value

n-butyl methacrylate

Biodegradation water

Method	Value	Duration	Value determination
OECD 301C	88 %; Oxygen consumption	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	16.968 h	0.5E6 /cm³	Calculated value

Conclusion

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

NOVALU 100 AEROSOL

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

acetone

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.69		Pisces	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.23		Test data

ethyl acetate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		30	3 day(s)	Leuciscus idus	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.68	25 °C	Test data

hydrocarbons, C9, aromatics

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	39.8 l/kg - 177.8 l/kg; Fresh weight		Pisces	QSAR

Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		2.92 - 3.59	20 °C	QSAR

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

aluminium powder

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (inorganic)			

n-butyl acetate

Log Kow

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Log Kow

Method	Remark	Value	Temperature	Value determination
		3.17 - 7.22		Estimated value

fatty acids, C14-18 and C16-18-unsatd., maleated

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF	BCFBAF v3.01	10			Calculated value

Log Kow

Method	Remark	Value	Temperature	Value determination
Other		> 4	23 °C	Experimental value

methyl methacrylate

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		1.38	20 °C	Experimental value

n-butyl methacrylate

Log Kow

Method	Remark	Value	Temperature	Value determination
Equivalent to OECD 107		2.99	20 °C	Experimental value

Conclusion

Contains 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

ethyl acetate

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	51.3 %	0 %	0.27 %	13.3 %	35.3 %	QSAR
Mackay level I	98.47 %	0 %	0 %	0.26 %	1.27 %	QSAR

hydrocarbons, C9, aromatics

(log) Koc

Parameter	Method	Value	Value determination
log Koc		2.68 - 3.32	QSAR

xylene

(log) Koc

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

n-butyl acetate

(log) Koc

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

(log) Koc

Parameter	Method	Value	Value determination
log Koc		4.16	Read-across

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level III	65.8 %	0 %	22.9 %	9.6 %	1.7 %	Calculated value

fatty acids, C14-18 and C16-18-unsatd., maleated

(log) Koc

Parameter	Method	Value	Value determination
log Koc	Other	2.41 - 5.38	Calculated value

methyl methacrylate

(log) Koc

Parameter	Method	Value	Value determination
log Koc	EPA OTS 796.2750	0.94 - 1.86	Experimental value

n-butyl methacrylate

(log) Koc

Parameter	Method	Value	Value determination
Koc	OECD 106	2767	Experimental value
log Koc		3.44	Calculated value

Conclusion

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

NOVALU 100 AEROSOL

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

ethyl acetate

Groundwater

Groundwater pollutant

Water ecotoxicity pH

Stability of the substance is pH dependent

hydrocarbons, C9, aromatics

Groundwater

Groundwater pollutant

n-butyl acetate

Groundwater

Groundwater pollutant

fatty acids, C14-18 and C16-18-unsatd., maleated

Groundwater

Groundwater pollutant

methyl methacrylate

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

13.1.2 Disposal methods

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. 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
86.4 %	

VOC content Directive 2004/42/EC

Maximum value	EC limit value	Category	Subcategory	Notation
648 g/l	840 g/l	IIB	e: Special finishes	2004/42/IIB(e)(840)648

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

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 · ethyl acetate · hydrocarbons, C9, aromatics · xylene · n-butyl acetate · hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics · fatty acids, C14-18 and C16-18-unsatd., maleated · methyl methacrylate · n-butyl methacrylate	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 · ethyl acetate · hydrocarbons, C9, aromatics · xylene · aluminium powder · n-butyl acetate · methyl methacrylate · n-butyl methacrylate	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.
· acetone · ethyl acetate · xylene · methyl methacrylate · n-butyl methacrylate · maleic anhydride	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 due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B	Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081

	— 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

NOVALU 100 AEROSOL

No data available

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.

National legislation The Netherlands

NOVALU 100 AEROSOL

Waterbezwaarlijkheid	B (2); Algemene Beoordelingsmethodiek (ABM)

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

National legislation France

NOVALU 100 AEROSOL

No data available

xylene

Risque de pénétration percutanée	Xylènes, isomères mixtes, purs; Risque de pénétration percutanée

National legislation Germany

NOVALU 100 AEROSOL

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

ethyl acetate

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

hydrocarbons, C9, aromatics

TA-Luft	5.2.5/I

xylene

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

aluminium powder

TA-Luft	5.2.1

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

hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

TA-Luft	5.2.5

fatty acids, C14-18 and C16-18-unsatd., maleated

TA-Luft	5.2.5/I

methyl methacrylate

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

n-butyl methacrylate

TA-Luft	5.2.5

maleic anhydride

TA-Luft	5.2.5/I
TRGS900 - Risiko der Fruchtschädigung	Maleinsäureanhydrid; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden
Sensibilisierende Stoffe	Maleinsäureanhydrid; Sh; Hautsensibilisierende Stoffe

National legislation Austria

NOVALU 100 AEROSOL

No data available

methyl methacrylate

Gefahr der Sensibilisierung der Haut	Methylmethacrylat; Sh

maleic anhydride

Gefahr der Sensibilisierung der Haut	Maleinsäureanhydrid; Sh
Gefahr der Sensibilisierung der Atemwege	Maleinsäureanhydrid; Sa

National legislation United Kingdom

NOVALU 100 AEROSOL

No data available

xylene

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

maleic anhydride

Skin Sensitisation	Maleic anhydride; Sen
Respiratory sensitisation	Maleic anhydride; Sen

Other relevant data

NOVALU 100 AEROSOL

No data available

acetone

TLV - Carcinogen	Acetone; A4

xylene

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

aluminium powder

TLV - Carcinogen	Aluminium metal and insoluble compounds; A4

methyl methacrylate

IARC - classification	3; Methyl methacrylate
TLV - Skin Sensitisation	Methyl methacrylate; SEN; Sensitization
TLV - Carcinogen	Methyl methacrylate; A4

maleic anhydride

TLV - Respiratory Sensitisation	Maleic anhydride; SEN; Sensitization
TLV - Skin Sensitisation	Maleic anhydride; SEN; Sensitization
TLV - Carcinogen	Maleic anhydride; 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.
H228 Flammable solid.
H229 Pressurised container: May burst if heated.
H261 In contact with water releases flammable gases.
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.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

H372 Causes damage to organs (respiratory system) through prolonged or repeated exposure 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.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.
EUH071 Corrosive to the respiratory tract.

(*)	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 %
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
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

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