

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name

90.100 Binder UniMix 1K Nitro Primer



chemius.net/07Q0a

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

Relevant identified uses

Varnish.

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Supplier

SILCO, D.O.O.
Address: Šentrupert 5 a, 3303 Gomilsko, Slovenia
Phone: +386 3 703 3180
Fax: +386 3 703 3188
E-mail: n.cvilak@silco-automotive.com
Point of contact for safety info: Nejc Cvilak

1.4. Emergency telephone number

Emergency

112

Supplier

+386 3 703 3180

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 3; H226 Flammable liquid and vapour.
Skin Irrit. 2; H315 Causes skin irritation.
Eye Dam. 1; H318 Causes serious eye damage.
STOT SE 3; H336 May cause drowsiness or dizziness.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: **Danger**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH205 Contains epoxy constituents. May produce an allergic reaction.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260 Do not breathe mist/vapours.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container in accordance with national regulation.

2.2.2. Contains:

n-butyl acetate (CAS: 123-86-4, EC: 204-658-1, Index: 607-025-00-1)

2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

No information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

For mixtures see 3.2.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: 90.100 Binder UniMix 1K Nitro Primer

Creation date: 23.1.2015 · Revision: 28.6.2018 · Version: 1

3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
n-butyl acetate	123-86-4 204-658-1 607-025-00-1	30-60	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066		-
xylene [C]	1330-20-7 215-535-7 601-022-00-9	0-20	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332		-
butan-1-ol	71-36-3 200-751-6 603-004-00-6	0-7	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336		-
propan-2-ol	67-63-0 200-661-7 603-117-00-0	0-7	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336		-
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7	0-7	Flam. Liq. 3; H226		-
ethylbenzene	100-41-4 202-849-4 601-023-00-4	0-3	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Acute Tox. 4; H332 STOT RE 2; H373 (hearing organs)		-
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0	0-3	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 4; H332		-
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2	0-3	Acute Tox. 4; H312 Acute Tox. 4; H332		-
epoxy resin	26761-45-5 - -	0,1-1	Eye Dam. 1; H318 Aquatic Chronic 2; H411		-

Notes for substances:

C Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.
In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.
No action shall be taken involving any personal risk or without suitable training.

Following inhalation

Remove patient to fresh air - move out of dangerous area. If symptoms occur, seek medical advice.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

Following skin contact

Immediately remove contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms persist seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation does not stop, seek professional medical treatment!

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Consult a physician. Show the physician the safety data sheet or label.

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

Inhalation

Harmful.

Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

Skin contact

Itching, redness, pain.

Harmful.

Eye contact

Redness, tearing, pain.

Ingestion

Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

May cause nausea/vomiting and diarrhea.

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

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SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of heating harmful vapours/gases can be generated.

5.3. Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for firefighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking! Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Do not use open fire and keep away all sources of ignition. Do not breathe vapour or mist. Avoid contact with skin and eyes.

6.1.2. For emergency responders

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6.2. Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

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6.3.2. For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor.

6.3.3. Other information

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6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Protect from open fire and other sources of ignition or heat.

Measures to prevent aerosol and dust generation

-

Measures to protect the environment

-

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin and eyes. Do not breathe vapours/mist.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Keep in cool and well ventilated area. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

7.2.2. Packaging materials

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7.2.3. Requirements for storage rooms and vessels

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7.2.4. Storage class

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7.2.5. Further information on storage conditions

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7.3. Specific end use(s)

Recommendations

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Industrial sector specific solutions

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m ³ (ppm)	mg/m ³	ml/m ³ (ppm)	mg/m ³		
Butan-1-ol (71-36-3)	-	-	50	154	Sk	
2-Butoxyethanol (111-76-2)	25	123	50	246	Sk, BMGV	240 mmol butoxyacetic acid/mol creatinine in urine - Post shift
2-Butoxyethyl acetate (112-07-2)	20	133	50	332	Sk	
Butyl acetate (123-86-4)	150	724	200	966		
Ethylbenzene (100-41-4)	100	441	125	552	Sk	
1-Methoxypropyl acetate (108-65-6)	50	274	100	548	Sk	
Propan-2-ol (67-63-0)	400	999	500	1250		
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	50	220	100	441	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

8.1.3. DNEL/DMEL values

For components

Name	Type	Exposure route	Exposure frequency	Value	Remark
n-butyl acetate (123-86-4)	Consumer	inhalation	long term (systemic effects)	102,34 mg/m ³	
n-butyl acetate (123-86-4)	Consumer	inhalation	long term (systemic effects)	102,34 mg/m ³	
n-butyl acetate (123-86-4)	Consumer	inhalation	short term (systemic effects)	859,7 mg/m ³	
n-butyl acetate (123-86-4)	Consumer	inhalation	short term (systemic effects)	859,7 mg/m ³	

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**

Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

n-butyl acetate (123-86-4)	Worker	inhalation	long term (systemic effects)	480 mg/m ³
n-butyl acetate (123-86-4)	Worker	inhalation	short term (systemic effects)	480 mg/m ³
n-butyl acetate (123-86-4)	Worker	inhalation	short term (systemic effects)	960 mg/m ³
xylene (1330-20-7)	Consumer	dermal	long term (systemic effects)	108 mg/kg
xylene (1330-20-7)	Consumer	inhalation	long term (systemic effects)	14,8 mg/m ³
xylene (1330-20-7)	Consumer	oral	long term (systemic effects)	1,6 mg/kg
xylene (1330-20-7)	Worker	dermal	long term (systemic effects)	180 mg/kg
xylene (1330-20-7)	Worker	inhalation	long term (systemic effects)	77 mg/m ³
xylene (1330-20-7)	Worker	inhalation	short term (systemic effects)	289 mg/kg
butan-1-ol (71-36-3)	Consumer	inhalation	long term (systemic effects)	55 mg/m ³
butan-1-ol (71-36-3)	Consumer	oral	long term (systemic effects)	3,125 mg/kg
butan-1-ol (71-36-3)	Worker	inhalation	long term (systemic effects)	310 mg/m ³
propan-2-ol (67-63-0)	Worker	inhalation	long term ()	500 mg/m ³
propan-2-ol (67-63-0)	Consumer	inhalation	long term ()	89 mg/m ³
propan-2-ol (67-63-0)	Worker	dermal	long term ()	888 mg/kg
propan-2-ol (67-63-0)	Consumer	dermal	long term ()	319 mg/kg
propan-2-ol (67-63-0)	Consumer	oral	long term ()	26 mg/kg
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	dermal	long term (systemic effects)	54,8 mg/kg
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	inhalation	long term (systemic effects)	33 mg/m ³
2-methoxy-1-methylethyl acetate (108-65-6)	Consumer	oral	long term (systemic effects)	1,67 mg/kg
2-methoxy-1-methylethyl acetate (108-65-6)	Worker	dermal	long term (systemic effects)	153,5 mg/kg
2-methoxy-1-methylethyl acetate (108-65-6)	Worker	inhalation	long term (systemic effects)	275 mg/m ³
ethylbenzene (100-41-4)	Consumer	inhalation	long term (systemic effects)	14,8 mg/m ³
ethylbenzene (100-41-4)	Consumer	oral	long term (systemic effects)	1,6 mg/kg
ethylbenzene (100-41-4)	Worker	dermal	long term (systemic effects)	180 mg/kg
ethylbenzene (100-41-4)	Worker	inhalation	long term (systemic effects)	77 mg/m ³
ethylbenzene (100-41-4)	Worker	inhalation	short term (systemic effects)	289 mg/m ³
ethylbenzene (100-41-4)	Consumer	dermal	long term (systemic effects)	108 mg/kg
ethylbenzene (100-41-4)	Consumer	inhalation	short term (systemic effects)	174 mg/m ³
ethylbenzene (100-41-4)	Consumer	inhalation	short term (local effects)	174 mg/m ³
2-butoxyethanol (111-76-2)	Worker	dermal	short term (systemic effects)	89 mg/kg
2-butoxyethanol (111-76-2)	Worker	inhalation	short term (systemic effects)	633 mg/m ³
2-butoxyethanol (111-76-2)	Worker	inhalation	long term (systemic effects)	246 mg/m ³
2-butoxyethanol (111-76-2)	Worker	dermal	long term (systemic effects)	75 mg/kg
2-butoxyethanol (111-76-2)	Worker	inhalation	long term (systemic effects)	98 mg/m ³
2-butoxyethanol (111-76-2)	Consumer	dermal	short term (systemic effects)	44,5 mg/kg
2-butoxyethanol (111-76-2)	Consumer	inhalation	short term (systemic effects)	426 mg/m ³
2-butoxyethanol (111-76-2)	Consumer	oral	short term (systemic effects)	13,4 mg/kg
2-butoxyethanol (111-76-2)	Consumer	inhalation	short term (systemic effects)	123 mg/m ³
2-butoxyethanol (111-76-2)	Consumer	dermal	long term (systemic effects)	38 mg/kg
2-butoxyethanol (111-76-2)	Consumer	inhalation	long term (systemic effects)	49 mg/m ³
2-butoxyethanol (111-76-2)	Consumer	oral	long term (systemic effects)	3,2 mg/kg

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

8.1.4. PNEC values

For components

Name	Exposure route	Value	Remark
n-butyl acetate (123-86-4)	soil	0,0903 mg/kg	
n-butyl acetate (123-86-4)	fresh water	0,18 mg/L	
n-butyl acetate (123-86-4)	fresh water sediment	0,981 mg/kg	
n-butyl acetate (123-86-4)	marine water	0,018 mg/L	
n-butyl acetate (123-86-4)	marine water sediment	0,0981 mg/kg	
xylene (1330-20-7)	soil	2,31 mg/kg	
xylene (1330-20-7)	fresh water	0,327 mg/L	
xylene (1330-20-7)	fresh water sediment	12,46 mg/kg	
xylene (1330-20-7)	marine water	0,327 mg/L	
xylene (1330-20-7)	marine water sediment	12,46 mg/kg	
butan-1-ol (71-36-3)	soil	0,015 mg/kg	
butan-1-ol (71-36-3)	fresh water	0,082 mg/L	
butan-1-ol (71-36-3)	fresh water sediment	0,178 mg/kg	
butan-1-ol (71-36-3)	marine water	0,0082 mg/L	
butan-1-ol (71-36-3)	marine water sediment	0,0178 mg/kg	
butan-1-ol (71-36-3)	water, intermittent release	2,25 mg/L	
butan-1-ol (71-36-3)	water treatment plant	2,476 mg/L	
propan-2-ol (67-63-0)	fresh water	140,9 mg/L	
propan-2-ol (67-63-0)	soil	28 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	soil	0,29 mg/kg	
2-methoxy-1-methylethyl acetate (108-65-6)	fresh water	0,635 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	fresh water sediment	3,29 mg/kg	
2-methoxy-1-methylethyl acetate (108-65-6)	marine water	0,0635 mg/L	
2-methoxy-1-methylethyl acetate (108-65-6)	marine water sediment	0,329 mg/kg	
ethylbenzene (100-41-4)	soil	2,68 mg/kg	
ethylbenzene (100-41-4)	fresh water	0,1 mg/L	
ethylbenzene (100-41-4)	marine water	0,01 mg/L	
ethylbenzene (100-41-4)	water, intermittent release	0,1 mg/L	
ethylbenzene (100-41-4)	fresh water sediment	13,7 mg/kg	
ethylbenzene (100-41-4)	water treatment plant	9,6 mg/L	
2-butoxyethanol (111-76-2)	fresh water	8,8 mg/L	
2-butoxyethanol (111-76-2)	marine water	0,88 mg/L	
2-butoxyethanol (111-76-2)	fresh water sediment	8,14 mg/kg	
2-butoxyethanol (111-76-2)	soil	2,8 mg/kg	
2-butoxyethanol (111-76-2)	water treatment plant	463 mg/L	

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

8.2.2. Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166).

Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Appropriate materials

Material	Thickness	Penetration Time	Remark
Nitrile	0,3 mm	480 min	

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387).

Thermal hazards

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8.2.3. Environmental exposure controls

-

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- Physical state:	liquid
- Colour:	
- Odour:	characteristic

Important health, safety and environmental information

- pH	No information.
- Melting point/freezing point	No information.
- Initial boiling point/boiling range	> 35 °C
- Flash point	≥ 23 °C
- Evaporation rate	No information.
- Flammability (solid, gas)	No information.
- Explosion limits (vol%)	2 – 11 vol %
- Vapour pressure	No information.
- Vapour density	> 1
- Density	Relative density: 0,967 – 1,02
- Solubility	No information.
- Partition coefficient	No information.
- Auto-ignition temperature	400 °C
- Decomposition temperature	No information.
- Viscosity	No information.
- Explosive properties	No information.
- Oxidising properties	No information.

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

9.2. Other information

-	Weight organic solvents	26,9 – 46,97 %
-	Solid contents	31,53 – 55,9 %
-	Remarks:	

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

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10.2. Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

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10.4. Conditions to avoid

Keep away from heat and sources of ignition. Protect from heat, direct sunlight, open fire, sparks.

10.5. Incompatible materials

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10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11. TOXICOLOGICAL INFORMATION

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
 Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

11.1. Information on toxicological effects

(a) Acute toxicity

Name	Exposure route	Type	Species	Time	Value	Method	Remark
n-butyl acetate (123-86-4)	oral	LD ₅₀	rat		10770 mg/kg		
n-butyl acetate (123-86-4)	dermal	LD ₅₀	rabbit		> 17600 mg/kg		
n-butyl acetate (123-86-4)	inhalation	LC ₅₀	rat	4 h	> 21 mg/m ³		
xylene (1330-20-7)	oral	LD ₅₀	rat		4300 mg/kg		
xylene (1330-20-7)	dermal	LD ₅₀	rabbit		2000 mg/kg		
xylene (1330-20-7)	inhalation	LC ₅₀	rat	4 h	22,1 mg/m ³		
butan-1-ol (71-36-3)	oral	LD ₅₀	rat		790 mg/kg		
butan-1-ol (71-36-3)	dermal	LD ₅₀	rabbit		3400 mg/kg		
butan-1-ol (71-36-3)	inhalation	LC ₅₀	rat	4 h	8000 mg/l		dust/aerosol
propan-2-ol (67-63-0)	oral	LD ₅₀	rat		4570 mg/kg		
propan-2-ol (67-63-0)	dermal	LD ₅₀	rabbit		13400 mg/kg		
propan-2-ol (67-63-0)	inhalation	LC ₅₀	rat	4 h	30 mg/l		vapour
2-methoxy-1-methylethyl acetate (108-65-6)	dermal	LD ₅₀	rat		5000 mg/kg		
2-methoxy-1-methylethyl acetate (108-65-6)	oral	LD ₅₀	rat		8532 mg/kg		
ethylbenzene (100-41-4)	dermal	LD ₅₀	rabbit		17800 mg/kg		
ethylbenzene (100-41-4)	oral	LD ₅₀	rat		3500 mg/kg		
2-butoxyethanol (111-76-2)	oral	LD ₅₀	rabbit		320 mg/kg		
2-butoxyethyl acetate (112-07-2)	dermal	LD ₅₀	rat		1580 mg/kg		

(b) Skin corrosion/irritation

Name	Species	Time	Result	Method	Remark
n-butyl acetate (123-86-4)			Irritating.		
n-butyl acetate (123-86-4)			Causes dermatitis.		
xylene (1330-20-7)			Irritating.		
butan-1-ol (71-36-3)			Contact with skin causes irritation.		
2-butoxyethanol (111-76-2)			Irritating.		
2-butoxyethyl acetate (112-07-2)			Prolonged and repeated contact can cause dermatitis.		

Additional information: Causes skin and eye irritation.

(c) Serious eye damage/irritation

Name	Species	Time	Result	Method	Remark
n-butyl acetate (123-86-4)			Irritating.		
xylene (1330-20-7)			Irritating.		
butan-1-ol (71-36-3)			Contact with eyes causes irritation.		
2-methoxy-1-methylethyl acetate (108-65-6)			May cause irritation.		
2-butoxyethanol (111-76-2)			Irritating.		

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
 Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

(d) Respiratory or skin sensitisation

Name	Exposure route	Species	Time	Result	Method	Remark
n-butyl acetate (123-86-4)	dermal	guinea pig		Non sensitising.		
xylene (1330-20-7)	dermal	mouse		Non sensitising.	OECD 429	experimental value
butan-1-ol (71-36-3)	dermal	guinea pig		Non sensitising.	OECD 406	
propan-2-ol (67-63-0)	dermal			Non sensitising.		
2-methoxy-1-methylethyl acetate (108-65-6)	dermal			Non sensitising.		
ethylbenzene (100-41-4)	dermal	mouse		Non sensitising.	OECD 429	

(e) (Germ cell) mutagenicity

Name	Type	Species	Time	Result	Method	Remark
n-butyl acetate (123-86-4)	in-vitro mutagenicity	Bacteria (<i>S. typhimurium</i>)		Negative with metabolic activation, negative without metabolic activation.	OECD 471 (EU B. 12/13)	experimental value
n-butyl acetate (123-86-4)	in-vivo mutagenicity	mouse (male/female)	24 h	Negative.	OECD 474	Read-across
xylene (1330-20-7)	in-vitro mutagenicity	Chinese hamster ovary		Negative.	OECD 473	experimental value
xylene (1330-20-7)	in-vivo mutagenicity	mouse		Negative.	OECD 478	experimental value
butan-1-ol (71-36-3)	in-vitro mutagenicity	Chinese hamster ovary		Negative.		
butan-1-ol (71-36-3)	in-vivo mutagenicity	mouse		Negative.	OECD 474	
propan-2-ol (67-63-0)	in-vitro mutagenicity			Negative with metabolic activation, negative without metabolic activation.		
2-methoxy-1-methylethyl acetate (108-65-6)				Negative.	OECD 471 (EU B. 12/13)	
ethylbenzene (100-41-4)	in-vivo mutagenicity	mouse (male)	48 h	Negative.	OECD 474	experimental value
2-butoxyethanol (111-76-2)	in-vitro mutagenicity	Bacteria (<i>S. typhimurium</i>)		Negative with metabolic activation, negative without metabolic activation.	OECD 471 (EU B. 12/13)	experimental value
2-butoxyethanol (111-76-2)	in-vitro mutagenicity	Chinese hamster ovary		Negative.	OECD 473	experimental value
2-butoxyethanol (111-76-2)	in-vitro mutagenicity	Chinese hamster ovary		Negative.	OECD 476	experimental value
2-butoxyethanol (111-76-2)	in-vivo mutagenicity	mouse	3 days	Negative.	OECD 474	experimental value
2-butoxyethanol (111-76-2)	in-vivo mutagenicity	rat	3 days	Negative.	OECD 474	experimental value

(f) Carcinogenicity

Name	Exposure route	Type	Species	Time	Value	Result	Method	Remark
butan-1-ol (71-36-3)						Limited evidence of a carcinogenic effect.		
ethylbenzene (100-41-4)	inhalation	NOAEC	rat (male/female)	104 weeks	250 ppm	No effect	OECD 453	

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
 Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

(g) Reproductive toxicity

Name	Reproductive toxicity type	Type	Species	Time	Value	Result	Method	Remark
n-butyl acetate (123-86-4)	Reproductive toxicity	NOAEC	rat (male/female)	70 days	2000 ppm		OECD 416	experimental value

Summary of evaluation of the CMR properties

No information.

(h) STOT-single exposure

Name	Exposure route	Type	Species	Time	Organ	Value	Result	Method	Remark
n-butyl acetate (123-86-4)	inhalation						Irritates respiratory system.		
xylene (1330-20-7)	inhalation						Irritates respiratory system.		
butan-1-ol (71-36-3)	inhalation						Irritates respiratory system.		
butan-1-ol (71-36-3)	inhalation						Irritates the nose.		
propan-2-ol (67-63-0)	inhalation						Causes respiratory tract irritation.		
propan-2-ol (67-63-0)	inhalation						Symptoms: headache, dizziness, nausea, vomiting, drowsiness.		
ethylbenzene (100-41-4)	inhalation						Harmful by inhalation.		
2-butoxyethanol (111-76-2)	oral	-	rat			500 mg/kg			
2-butoxyethanol (111-76-2)	dermal	-	rat			1100 mg/kg			
2-butoxyethanol (111-76-2)	inhalation	-	rat			11 mg/L			

Additional information: May cause drowsiness or dizziness.

(i) STOT-repeated exposure

Name	Exposure route	Type	Species	Time	Organ	Value	Result	Method	Remark
butan-1-ol (71-36-3)	oral	NOAEL	rat	13 weeks		125 mg/kg/day	No effect.		
ethylbenzene (100-41-4)	oral	NOAEL	rat (male/female)	13 weeks		75 mg/kg bw/day	No effect.	OECD 408	experimental value
ethylbenzene (100-41-4)	oral	NOAEL	rat (male/female)	90 days		500 mg/kg bw/day	No effect.	OECD 424	experimental value

Additional information: Repeated exposure may cause skin dryness or cracking.

(j) Aspiration hazard

No information.

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **90.100 Binder UniMix 1K Nitro Primer**
 Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**



SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
n-butyl acetate (123-86-4)	EC ₅₀	44 mg/L	48 h	daphnia			
	EC ₅₀	320 mg/L	96 h	algae			
	LC ₅₀	205 mg/L	24 h	daphnia			
	LC ₅₀	18 mg/L	96 h	fish	<i>Pimephales promelas</i>		
xylene (1330-20-7)	LC ₅₀	13,4 mg/L	96 h	fish			
	LC ₅₀	13,3 mg/L	96 h	fish			
	LC ₅₀	12 mg/L	96 h	fish			
	LC ₅₀	8,6 mg/L	96 h	fish			
	LC ₅₀	8,2 mg/L	96 h	fish			
	LC ₅₀	3,3 mg/L	96 h	fish			
butan-1-ol (71-36-3)	LC ₅₀	1200 – 1700 mg/L	96 h	fish			
	EC ₅₀	1983 mg/L	48 h	crustacea			
	EC ₅₀	500 mg/L	72 h	algae			
propan-2-ol (67-63-0)	LC ₅₀	9640 mg/L	96 h	fish			
	EC ₅₀	13299 mg/L	48 h	crustacea			
	EC ₅₀	1000 mg/L	72 h	algae			
2-methoxy-1-methylethyl acetate (108-65-6)	LC ₅₀	161 mg/L	96 h	fish			
ethylbenzene (100-41-4)	LC ₅₀	9,6 mg/L	96 h	fish			
	LC ₅₀	9,09 mg/L	96 h	fish			
	LC ₅₀	4,2 mg/L	96 h	fish			
2-butoxyethanol (111-76-2)	LC ₅₀	1490 mg/L	96 h	fish			
2-butoxyethyl acetate (112-07-2)	EC ₅₀	150 mg/L	48 h	crustacea			
	EC ₅₀	500 mg/L	72 h	algae			
	LC ₅₀	80 mg/L	96 h	fish			
	EC ₅₀	2800 mg/L	0	bacteria			

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**

Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

12.1.2. Chronic (long-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
n-butyl acetate (123-86-4)	NOEC	200 mg/l		algae	<i>Desmodesmus subspicatus</i>		
xylene (1330-20-7)	NOEC	0,44 mg/l	73 h	algae	<i>Pseudokirchneriella subcapitata</i>		
	NOEC	1,57 mg/l	21 days	crustacea	<i>Daphnia magna</i>		
	NOEC	> 1,3 mg/l	56 days	fish	<i>Oncorhynchus mykiss</i>		
butan-1-ol (71-36-3)	NOEC	4,1 mg/l	21 days	aquatic invertebrate	<i>Daphnia magna</i>	OECD 211	
propan-2-ol (67-63-0)	LOEC	1000 mg/l	8 days	algae			
ethylbenzene (100-41-4)	NOEC	6,8	48 h	Magna Daphnia	<i>Daphnia magna</i>		
	NOEC	3,3 mg/l	96 h	fish	<i>Menidia menidia</i>		
2-butoxyethanol (111-76-2)	NOEC	1000	48 h	Magna Daphnia	<i>Daphnia magna</i>		

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

For components

Substance (CAS Nr.)	Type	Rate	Time	Evaluation	Method	Remark
n-butyl acetate (123-86-4)	aerobic	98 %		readily biodegradable		
xylene (1330-20-7)	aerobic	> 70 %	28 days	biodegradable		
xylene (1330-20-7)	anaerobic	≤ 100 %	12 days	readily biodegradable	OECD 301 B	experimental value
xylene (1330-20-7)	anaerobic	= 87,8 %	28 days		OECD 301 F: Manometric Respirometry Test	Read-across
butan-1-ol (71-36-3)	aerobic			readily biodegradable	OECD 301 D	
propan-2-ol (67-63-0)	aerobic			readily biodegradable		
2-methoxy-1-methylethyl acetate (108-65-6)	aerobic	100 %	28 days	biodegradable	OECD 302 B	
ethylbenzene (100-41-4)	aerobic				OECD 301 A (Modified AFNOR Test)	
2-butoxyethanol (111-76-2)	aerobic			readily biodegradable		

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
 Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

12.3. Bioaccumulative potential

12.3.1. Partition coefficient

For components

Substance (CAS Nr.)	Media	Value	Temperature	pH	Concentration	Method
n-butyl acetate (123-86-4)	Octanol-water (log Pow)	1,78				
xylene (1330-20-7)	Octanol-water (log Pow)	3,16				
butan-1-ol (71-36-3)	Octanol-water (log Pow)	0,88				
propan-2-ol (67-63-0)	Octanol-water (log Pow)	0,05				
2-methoxy-1-methylethyl acetate (108-65-6)	Octanol-water (log Pow)	0,56				
ethylbenzene (100-41-4)	Octanol-water (log Pow)	3,15				
2-butoxyethanol (111-76-2)	Octanol-water (log Pow)	0,83	25 °C			OECD 107

12.3.2. Bioconcentration factor (BCF)

For components

Substance (CAS Nr.)	Type	Organism	Value	Duration	Evaluation	Method	Remark
n-butyl acetate (123-86-4)	organism		3,1				
propan-2-ol (67-63-0)	BCF		3				
2-methoxy-1-methylethyl acetate (108-65-6)	organism		0,43				
2-butoxyethanol (111-76-2)	organism		0,81				

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

For components

Substance (CAS Nr.)	Air	Water	Soil	Sediment	(Aquatic) Biota	Method	Remark
butan-1-ol (71-36-3)	27,07	72,85	0,04	0,04	0	Mackay level 1	

12.4.2. Surface tension

For components

Substance (CAS Nr.)	Value	Temperature	Concentration	Method	Remark
propan-2-ol (67-63-0)	22400 N/m	25 °C			

12.4.3. Adsorption/Desorption

For components

Substance (CAS Nr.)	Type	Criterion	Value	Evaluation	Method	Remark
n-butyl acetate (123-86-4)	Soil	log KOC	1,268 – 1,844		SRC PCKOCWIN v2.0	QSAR
butan-1-ol (71-36-3)	Soil	log KOC	0,388		SRC PCKOCWIN v1.66	
butan-1-ol (71-36-3)	Soil	Henry constant (H)	0,0539 Pa.m ³ / mol			
propan-2-ol (67-63-0)	Soil	log KOC	1,5			
propan-2-ol (67-63-0)	Soil	Henry constant (H)	0,82 Pa.m ³ / mol			
2-methoxy-1-methylethyl acetate (108-65-6)	Soil		1,7			Koc
ethylbenzene (100-41-4)	Soil	log KOC	2,71		SRC PCKOCWIN v1.66	Calculated value

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

No information.

12.7. Additional information

For product

Do not allow to reach ground water, water courses or sewage system.

For components

Substance: n-butyl acetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

Substance: xylene

Chemical Oxygen Demand (COD)
3170 mg O₂/g

Log Kow = 3,14-3,18

Substance: butan-1-ol

Water hazard class 1 (Self-assessment): slightly hazardous for water

Substance: propan-2-ol

Product is easily biodegradable.

Substance: 2-methoxy-1-methylethyl acetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

Substance: ethylbenzene

Water hazard class 1 (Self-assessment): slightly hazardous for water

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

13.1.2. Waste treatment-relevant information

-

13.1.3. Sewage disposal-relevant information

-

13.1.4. Other disposal recommendations

-

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

UN 1263

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3

14.4. Packing group

III

14.5. Environmental hazards

NO.

14.6. Special precautions for user

Limited quantities

5 L

Tunnel restriction code

(D/E)

IMDG flashpoint

23 °C, c.c.

IMDG EmS

F-E, S-E



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

Goods may not be carried in bulk in bulk containers, containers or vehicles.

SECTION 15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

Not applicable.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

Indication of changes

-

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**

Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC₅₀ - Lethal Concentration to 50 % of a test population
LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **90.100 Binder UniMix 1K Nitro Primer**
Creation date: **23.1.2015** · Revision: **28.6.2018** · Version: **1**

Key literature references and sources for data

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List of relevant H phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure .
- H411 Toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.



- Provided correct labelling of the product
- Compliance with the local legislation
- Provided correct classification of the product
- Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.