

Trade name: Hesse 2C Reactive systems, silk mat PEX RSB 96284-F

Version: 20 / GB

Revision: 30.11.2022

Replaces Version: 19 / GB

Print date: 16.01.23

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

1.1. Product identifier

Hesse 2C Reactive systems, silk mat PEX RSB 96284-F

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

Use of the substance/preparation

Surface treatment of wood and other materials

Identified Uses

	REACHSET 2001
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC11	Non industrial spraying
	REACHSET 2003
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC10	Roller application or brushing

1.3. Details of the supplier of the safety data sheet

Manufacturer

Hesse GmbH & Co. KG
Warendorfer Strasse 21
59075 Hamm (Germany)
Telephone no. +49 (0) 2381 963-00
Fax no. +49 (0) 2381 963-849
E-mail address ps@hesse-lignal.de

1.4. Emergency telephone number

Germany: +49 (0) 2381 788-612

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
Eye Irrit. 2	H319
STOT SE 3	H336
Aquatic Chronic 3	H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

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Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains propan-2-ol; 2-methylpropan-1-ol; 2-methoxy-1-methylethyl acetate; n-butyl acetate

EUH208 Contains formaldehyde, May produce an allergic reaction.

Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

n-butyl acetate

CAS No.	123-86-4			
EINECS no.	204-658-1			
Registration no.	01-2119485493-29			
Concentration	>= 25	< 50	%	
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3	H226		
	STOT SE 3	H336		Nervous system
		EUH066		

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Hydrocarbons, C9, aromatics

CAS No.	128601-23-0		
EINECS no.	918-668-5		
Registration no.	01-2119455851-35		
Concentration	>= 3	< 10	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 3	H226	
	Asp. Tox. 1	H304	
	Aquatic Chronic 2	H411	
	STOT SE 3	H335	Respiratory tract
	STOT SE 3	H336	Nervous system
		EUH066	

2-methoxy-1-methylethyl acetate

CAS No.	108-65-6		
EINECS no.	203-603-9		
Registration no.	01-2119475791-29		
Concentration	>= 1	< 10	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 3	H226	
	STOT SE 3	H336	

propan-2-ol

CAS No.	67-63-0		
EINECS no.	200-661-7		
Registration no.	01-2119457558-25		
Concentration	>= 1	< 10	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 2	H225	
	Eye Irrit. 2	H319	
	STOT SE 3	H336	Nervous system

2-methylpropan-1-ol

CAS No.	78-83-1		
EINECS no.	201-148-0		
Registration no.	01-2119484609-23		
Concentration	>= 1	< 3	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 3	H226	
	STOT SE 3	H335	Respiratory tract
	Skin Irrit. 2	H315	
	Eye Dam. 1	H318	
	STOT SE 3	H336	Nervous system

formaldehyde

CAS No.	50-00-0		
EINECS no.	200-001-8		
Registration no.	01-2119488953-20		
Concentration		< 0,1	%
Classification (Regulation (EC) No. 1272/2008)			
	Acute Tox. 3	H311	Route of exposure: Dermal exposure

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Acute Tox. 2 H330

Route of exposure: Inhalation
exposure

Acute Tox. 3 H301

Route of exposure: Oral exposure

Skin Corr. 1B H314

Eye Dam. 1 H318

Skin Sens. 1A H317

Muta. 2 H341

Carc. 1B H350

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Sens. 1A H317 $\geq 0,2 \%$

STOT SE 3 H335 $\geq 5 \%$

Skin Irrit. 2 H315 $\geq 5 < 25 \%$

Eye Irrit. 2 H319 $\geq 5 < 25 \%$

Skin Corr. 1B H314 $\geq 25 \%$

cellulose nitrate $\leq 12.6 \%$ N

CAS No. 9004-70-0

Classification (Regulation (EC) No. 1272/2008)

Expl. 1.1 H201

Further ingredients

ethanol

CAS No. 64-17-5

EINECS no. 200-578-6

Registration no. 01-2119457610-43

Concentration $\geq 1 < 10 \%$

Advice: [3]

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225

Note

[3] Substance with occupational exposure limits

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

If unconscious place in recovery position and seek medical advice. In all cases of doubt, or when symptoms persist, seek medical attention. First aider: Pay attention to self-protection! Remove affected person from danger area, lay him down.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Keep warm, calm and covered up. In all cases of doubt, or when symptoms persist, seek medical attention.

After skin contact

Wash off immediately with soap and water. Do NOT use solvents or thinners. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. Take medical treatment.

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After ingestion

Do not induce vomiting. Take medical treatment.

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

Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. High concentration of vapours may cause irritation to eyes and respiratory system and produce narcotic effects.

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

Hints for the physician / treatment

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist

Non suitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. In a fire, hazardous decomposition products may be produced. Exposure to decomposition products may cause a health hazard. Vapours can form an explosive mixture with air.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

In case of combustion evolution of dangerous gases possible. Use self-contained breathing apparatus.

Other information

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses. Standard procedure for chemical fires.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Do not inhale vapours. Do not inhale gases. Do not inhale mist.

6.2. Environmental precautions

Do not allow to enter drains or waterways. Do not allow to enter soil, waterways or waste water canal. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Do NOT use solvents or thinners. Send in suitable containers for recovery or disposal.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

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7.1. Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep container tightly closed and dry in a cool, well-ventilated place. Use only with adequate ventilation/personal protection. Ensure adequate ventilation. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Do not eat, drink or smoke when using this product. Use personal protective clothing. For personal protection see Section 8.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Vapours are heavier than air and may spread along floors. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Take measures to prevent the build up of electrostatic charge. Wear shoes with conductive soles. No sparking tools should be used. Fight fire with normal precautions from a reasonable distance.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide solvent-resistant and impermeable floor. Keep only in the original container in a cool, well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Store away from oxidising agents, from strongly alkaline and strongly acid materials.

Storage classes

Storage class according to TRGS 510 3 Flammable liquid

Further information on storage conditions

Protect from frost. Protect from heat and direct sunlight. Keep away from sources of ignition - No smoking. Store in accordance with the particular national regulations.

7.3. Specific end use(s)

See exposure scenario, if available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

2-methoxy-1-methylethyl acetate

List	Directive 2017/164 EG			
Value	275	mg/m ³	50	ppm(V)
Short term exposure limit	550	mg/m ³	100	ppm(V)
Status:	12/2009			

2-methoxy-1-methylethyl acetate

List	EH40			
Value	274	mg/m ³	50	ppm(V)
Short term exposure limit	548	mg/m ³	100	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

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propan-2-ol

List	EH40			
Value	999	mg/m ³	400	ppm(V)
Short term exposure limit	1250	mg/m ³	500	ppm(V)
Status:	01/2020			

2-methylpropan-1-ol

List	EH40			
Value	154	mg/m ³	50	ppm(V)
Short term exposure limit	231	mg/m ³	75	ppm(V)
Status:	01/2020			

n-butyl acetate

List	EH40			
Value	724	mg/m ³	150	ppm(V)
Short term exposure limit	966	mg/m ³	200	ppm(V)
Status:	01/2020			

n-butyl acetate

List	Directive 2017/164 EG			
Value	241	mg/m ³	50	ppm(V)
Short term exposure limit	723	mg/m ³	150	ppm(V)
Status:	10/2019			

ethanol

List	EH40			
Value	1920	mg/m ³	1000	ppm(V)
Status:	01/2020			

Hydrocarbons, C9, aromatics

List	EH40			
Value	500	mg/m ³		
Status:	01/2020			

Other information

-

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-methoxy-1-methylethyl acetate

Type of value	Derived No Effect Level (DNEL)			
Reference group	Workers (professional)			
Duration of exposure	Long-term			
Route of exposure	inhalative			
Mode of action	Systemic effects			
Concentration	275			mg/m ³

Type of value	Derived No Effect Level (DNEL)			
Reference group	Workers (professional)			
Duration of exposure	Long-term			
Route of exposure	Dermal exposure			
Mode of action	Systemic effects			
Concentration	153,5			mg/kg/d

Type of value	Derived No Effect Level (DNEL)			
Reference group	Consumer			
Duration of exposure	Long-term			
Route of exposure	Oral exposure			

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Mode of action	Systemic effects	
Concentration	1,67	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	33	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	54,8	mg/kg

propan-2-ol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Chronic effects	
Concentration	888	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Chronic effects	
Concentration	500	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Chronic effects	
Concentration	89	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Chronic effects	
Concentration	26	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	319	mg/kg/d

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2-methylpropan-1-ol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	310	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	55	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Local effects	
Concentration	25	mg/kg/d

n-butyl acetate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	11	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	600	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	600	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	

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Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	6	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	35,7	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	oral	
Mode of action	Specific effects	
Concentration	2	mg/kg/d

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Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	Dermal exposure	
Mode of action	Specific effects	
Concentration	6	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Short term	
Route of exposure	Dermal exposure	
Mode of action	Specific effects	
Concentration	11	mg/kg/d

Hydrocarbons, C9, aromatics

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	11	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	25	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	11	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	150	mg/kg

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	32	mg/kg

ethanol

Type of value	Derived No Effect Level (DNEL)	
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Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1900	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	343	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	960	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Acute effects	
Concentration	960	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	206	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	114	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	87	mg/kg/d
formaldehyde		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	

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Mode of action	Local effects	
Concentration	0,8	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	240	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	9	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	0,037	mg/cm²
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	0,4	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	102	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,2	mg/cm²
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	4,1	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	

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Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	0,012	mg/cm ²

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	0,1	mg/m ³

Predicted No Effect Concentration (PNEC)

2-methoxy-1-methylethyl acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,635	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,0635	mg/l

Type of value	PNEC	
Conditions	sporadic release	
Concentration	6,35	mg/l

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,29	mg/kg

Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,329	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0,29	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l

propan-2-ol

Type of value	PNEC	
Type	Freshwater	
Concentration	140,9	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	140,9	mg/l

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Type of value	PNEC	
Conditions	sporadic release	
Concentration	140,9	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	552	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	552	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	28	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	2251	mg/l

2-methylpropan-1-ol

Type of value	PNEC	
Type	Freshwater	
Concentration	0,4	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,04	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	11	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	1,52	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,152	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0699	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

n-butyl acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,18	mg/l

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Type of value	PNEC	
Type	Saltwater	
Concentration	0,018	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	35,6	mg/l
Type of value	PNEC	
Type	Water	
Conditions	sporadic release	
Concentration	0,36	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,981	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,0981	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,0903	mg/kg
ethanol		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,96	mg/l
Type of value	PNEC	
Type	marine water	
Concentration	0,79	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	2,75	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	580	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,6	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	2,9	mg/kg
Type of value	PNEC	
Type	Soil	

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Concentration 0,63 mg/kg

formaldehyde

Type of value

PNEC

Type

Freshwater

Concentration

0,47

mg/l

Type of value

PNEC

Type

marine water

Concentration

0,47

mg/l

Type of value

PNEC

Type

Fresh water sediment

Concentration

2,44

mg/kg

Type of value

PNEC

Type

saltwater sediment

Concentration

2,44

mg/kg

Type of value

PNEC

Type

Soil

Concentration

0,21

mg/kg

Type of value

PNEC

Type

Sewage treatment plant (STP)

Concentration

0,19

mg/l

8.2. Exposure controls

Exposure controls

Users are advised to consider national Occupational Exposure Limits or other equivalent values. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol. Recommended Filter type: Respiratory protection mask with combination filter A/P2

Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material

Fluorinated rubber / butyl-rubber

Material thickness

>= 0,7 mm

Breakthrough time

>= 30 min

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

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Gloves should be replaced regularly and if there is any sign of damage to the glove material. The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid
Colour coloured
Odour solvent-like

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point or initial boiling point and boiling range

Value 78 to 200 °C

Flammability

not determined

Upper and lower explosive limits

Remarks not determined

Flash point

Value < 21 °C

Ignition temperature

Remarks not determined

Decomposition temperature

Remarks not determined

Viscosity

Remarks not determined

Solubility(ies)

Remarks not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Vapour pressure

Remarks not determined

Density and/or relative density

Value appr. 1,086 kg/l
Temperature 20 °C

Relative vapour density

Remarks not determined

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Particle characteristics

Remarks not determined

9.2. Other information

Odour threshold

Remarks not determined

Evaporation rate

Remarks not determined

Solubility in water

Remarks not determined

Efflux time

Value 58 to 58 s
Temperature 20 °C
Method DIN 53211 4 mm

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

Non-volatile content

Value 49 %

Other information

This information is not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7).

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4. Conditions to avoid

Isolate from sources of heat, sparks and open flame.

10.5. Incompatible materials

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide, nitrous oxides (NO_x), dense black smoke, No decomposition if used as prescribed.

SECTION 11: Toxicological information

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

Acute oral toxicity

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Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Acute oral toxicity (Components)

formaldehyde

Species rat
LD50 299 mg/kg

Acute dermal toxicity

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Acute dermal toxicity (Components)

formaldehyde

Species rabbit
LD50 270 mg/kg

Acute inhalational toxicity

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Acute inhalative toxicity (Components)

formaldehyde

ATE 0,05 mg/l
Duration of exposure 4 h
Administration/Form Dust/Mist
Method conversion value

Skin corrosion/irritation

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Skin corrosion/irritation (Components)

2-methylpropan-1-ol

Species rabbit
Duration of exposure 8 d
Observation Period 24 h
evaluation Skin irritation
Method Value taken from the literature
Source 2 (reliable with restrictions)

formaldehyde

evaluation Causes burns.

Serious eye damage/irritation

evaluation irritant
Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks The classification criteria are met.

Serious eye damage/irritation (Components)

propan-2-ol

Species rabbit
Observation Period 14 d
evaluation Irritating to eyes.
Source 1 (reliable without restriction)

2-methylpropan-1-ol

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Species rabbit
Observation Period 14 d
evaluation irritant - risk of serious damage to eyes
Source 1 (reliable without restriction)

formaldehyde

Sensitization

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Sensitization (Components)

formaldehyde

evaluation May cause sensitization by skin contact.

Mutagenicity

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Mutagenicity (Components)

formaldehyde

evaluation Mutagenic Category 2

Reproductive toxicity

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Carcinogenicity

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks Based on available data, the classification criteria are not met.

Carcinogenicity (Components)

formaldehyde

evaluation Carcinogenic Category 1

Specific Target Organ Toxicity (STOT)

Single exposure

Method Calculation method (Regulation (EC) No. 1272/2008)
Remarks The classification criteria are met.
evaluation May cause drowsiness or dizziness.

Repeated exposure

Remarks Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) (Components)

propan-2-ol

Specific target organ toxicity - single exposure

Organs: Nervous system
Remarks Possible narcotic effects (drowsiness, dizziness).

2-methylpropan-1-ol

Specific target organ toxicity - single exposure

Organs: Respiratory tract
Remarks May cause respiratory irritation.

2-methylpropan-1-ol

Specific target organ toxicity - single exposure

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Remarks
Organs: Nervous system
Possible narcotic effects (drowsiness, dizziness).

n-butyl acetate

Specific target organ toxicity - repeated exposure

Remarks
Organs: Nervous system
Possible narcotic effects (drowsiness, dizziness).

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

Remarks
Route of exposure inhalative
Possible narcotic effects (drowsiness, dizziness).

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

Remarks
Possible narcotic effects (drowsiness, dizziness).

2-methoxy-1-methylethyl acetate

Specific target organ toxicity - repeated exposure

evaluation
May cause drowsiness or dizziness.
Organs: Nervous system

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Other information

No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information

For this subsection there is no ecotoxicological data available on the product as such.

Fish toxicity (Components)

Hydrocarbons, C9, aromatics

Species	Oncorhynchus mykiss (rainbow trout)	
LC50	9,2	mg/l
Duration of exposure	96	h

Daphnia toxicity (Components)

Hydrocarbons, C9, aromatics

Species	Daphnia magna (Water flea)	
EC50	3,2	mg/l
Duration of exposure	48	h

Hydrocarbons, C9, aromatics

Species	Daphnia magna (Water flea)	
NOEC	2,14	mg/l
Duration of exposure	21	d

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formaldehyde

Species	Daphnia magna (Water flea)	
NOEC	25	mg/l
Duration of exposure	35	d

formaldehyde

Species	Daphnia magna (Water flea)	
EC50	5,8	mg/l
Duration of exposure	48	h

Algae toxicity (Components)

Hydrocarbons, C9, aromatics

Species	Pseudokirchneriella subcapitata (green algae)	
EC50	2,6	to 2,9 mg/l
Duration of exposure	72	h

12.2. Persistence and degradability

General information

For this subsection there is no ecotoxicological data available on the product as such.

Biodegradability (Components)

Hydrocarbons, C9, aromatics

evaluation Readily biodegradable.

12.3. Bioaccumulative potential

General information

For this subsection there is no ecotoxicological data available on the product as such.

Partition coefficient n-octanol/water (log value)

Remarks not determined

12.4. Mobility in soil

General information

For this subsection there is no ecotoxicological data available on the product as such.

Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

General information

For this subsection there is no ecotoxicological data available on the product as such.

Results of PBT and vPvB assessment

The product contains no PBT substances

The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the environment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

General information

For this subsection there is no ecotoxicological data available on the product as such.

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General information / ecology

For this subsection there is no ecotoxicological data available on the product as such.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code	080111 - waste paint and varnish containing organic solvents or other dangerous substances
EWC waste code	200127 - paint, inks, adhesives and resins containing dangerous substances

Where possible recycling is preferred to disposal or incineration.
Do not allow to enter drains or waterways.

modified product

EWC waste code	080113 - sludges from paint or varnish containing organic solvents or other dangerous substances
EWC waste code	080115 - aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances

Dried residues

EWC waste code	080112 - waste lacquers and waste paint except those falling under 080111
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Disposal recommendations for packaging

EWC waste code	150110 - packaging containing residues of or contaminated by dangerous substances
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Completely emptied packagings can be given for recycling.

SECTION 14: Transport information




Trade name: Hesse 2C Reactive systems, silk mat PEX RSB 96284-F

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	PAINT
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Special provision	640D		
Limited Quantity	5 l		
Transport category	2		
14.5. Environmental hazards		no	

SECTION 15: Regulatory information

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

VOC

VOC (EU) appr. 50 % 525 g/l

15.2. Chemical safety assessment

For this substance / mixture a chemical safety assessment was not carried out.

SECTION 16: Other information

Hazard statements listed in Chapter 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H201	Explosive; mass explosion hazard.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

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H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H411	Toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 2	Acute toxicity, Category 2
Acute Tox. 3	Acute toxicity, Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Expl. 1.1	Explosive, Division 1.1
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1A	Skin sensitization, Category 1A
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

Flam. Liq - Flammable liquids
 RID - Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG - International Maritime Code for Dangerous Goods
 IATA - International Air Transport Association
 IATA-DGR - Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO-TI - Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS - Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS - European Inventory of Existing Commercial Chemical Substances
 CAS - Chemical Abstracts Service (division of the American Chemical Society)
 GefStoffV - Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 LOAEL - Lowest Observed Adverse Effect Level
 LOEL - Lowest Observed Effect Level
 NOAEL - No Observed Adverse Effect Level
 NOEC - No Observed Effect Concentration
 NOEL - No Observed Effect Level
 OECD - Organisation for Economic Cooperation and Development
 VOC - Volatile Organic Compounds
 Changes since the last version are highlighted in the margin (***). This version replaces all previous versions.
 This safety datasheet only contains information relating to safety and does not replace any product information or product specification.
 The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

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EWC waste code

080113 - sludges from paint or varnish containing organic solvents or other dangerous substances
080115 - aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances

Dried residues

EWC waste code

080112 - waste lacquers and waste paint except those falling under 080111

Disposal recommendations for packaging

EWC waste code

150110 - packaging containing residues of or contaminated by dangerous substances

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure (professional)

Short title of the exposure scenario

Substance number: CES006

Use

SU22

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

PROC11

Non industrial spraying

Physical form

liquid

Maximum amount used per time or activity

Duration of exposure	<=	8	h/d
Frequency of exposure	<=	220	d/a

Other relevant operational conditions

Use: Room temperature

Drying and through-curing takes place at ambient temperature or at higher temperatures.

Volatile organic substances will volatilise into the atmospheric air inside.

Read attached instructions before use.

Product substance and product safety related measures

Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.

Recommended Filter type: Respiratory protection mask with combination filter A/P2

Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves

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mentioned above together with the supplier of these gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

Exposure estimation and reference to its source

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - local and systemic
Exposure assessment	13,71 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,09
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	137,71 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - local and systemic
Exposure assessment	27,43 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,18
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic



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Exposure assessment	Indoor use
Exposure assessment (method)	27,54 mg/m ³
Risk characterisation ratio (RCR)	ECETOC TRA
Lead substance	0,1
	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - local and systemic
	Indoor use
Exposure assessment	2,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic
	Outdoor use
Exposure assessment	55,08 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - local and systemic
	Outdoor use
Exposure assessment	107,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,7
Lead substance	2-methoxy-1-methylethyl acetate

SU	SU21
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	6 mg/kg/d
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,11
Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	inhalation, long-term - systemic
	Indoor use

Exposure assessment	6,83 mg/m ³
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,6
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	Long-term
	inhalative

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Exposure assessment	242	mg/m ³
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,504	
Lead substance	n-butyl acetate	

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES004 - Professional uses: roller application or brushing, dipping and pouring and other processing without aerosol formation (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC10	Roller application or brushing
PROC13	Treatment of articles by dipping and pouring
PROCh01	Other processing without aerosol formation

Contributing exposure scenario controlling environmental exposure

Use

ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 250

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Volatile organic substances will volatilise into the atmospheric air inside.
Where possible recycling is preferred to disposal or incineration.
Do not allow to enter soil, waterways or waste water canal.
Dispose of rinse water in accordance with local and national regulations.

Waste water

Do not discharge into the drains/surface waters/groundwater.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

Floors should be impervious, resistant to liquids and easy to clean.

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Disposal recommendations for the product

EWC waste code 080111 - waste paint and varnish containing organic solvents
or other dangerous substances
200127 - paint, inks, adhesives and resins containing
dangerous substances

Where possible recycling is preferred to disposal or incineration.
Do not allow to enter drains or waterways.

modified product

EWC waste code 080113 - sludges from paint or varnish containing organic
solvents or other dangerous substances
080115 - aqueous sludges containing paint or varnish
containing organic solvents or other dangerous substances

Dried residues

EWC waste code 080112 - waste lacquers and waste paint except those falling
under 080111

Disposal recommendations for packaging

EWC waste code 150110 - packaging containing residues of or contaminated
by dangerous substances

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure (professional)

Short title of the exposure scenario

Substance number:CES008

Use

SU22 Professional uses: Public domain (administration, education, entertainment,
services, craftsmen)
PROC10 Roller application or brushing
PROC13 Treatment of articles by dipping and pouring
PROCh01 Other processing without aerosol formation

Physical form

liquid

Maximum amount used per time or activity

Duration of exposure	<=	8	h/d
Frequency of exposure	<=	220	d/a

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Volatile organic substances will volatilise into the atmospheric air inside.
Read attached instructions before use.

Product substance and product safety related measures

Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Respiratory protection

Avoid inhalation of vapour and spray mist. Use breathing apparatus if exposed to vapours/dust/aerosol.
Recommended Filter type: Respiratory protection mask with combination filter A/P2

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Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness \geq 0,7

Breakthrough time \geq 30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

The breakthrough time must be greater than the end use time of the product.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

Wear suitable protective clothing. Remove contaminated clothing and wash it before reuse. Wash hands before breaks and after work.

Exposure estimation and reference to its source

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - local and systemic
Exposure assessment	13,71 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,09
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	137,71 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
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PROC
Assessment method
Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance

PROC10
dermal, long-term - local and systemic
27,43 mg/kg/d
ECETOC TRA
0,18
2-methoxy-1-methylethyl acetate

Workers (professional)

SU
PROC
Assessment method

Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance

SU22
PROC11
inhalation, long-term - local and systemic
Indoor use
27,54 mg/m³
ECETOC TRA
0,1
2-methoxy-1-methylethyl acetate

Workers (professional)

SU
PROC
Assessment method

Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance

SU22
PROC11
dermal, long-term - local and systemic
Indoor use
2,14 mg/kg/d
ECETOC TRA
0,01
2-methoxy-1-methylethyl acetate

Workers (professional)

SU
PROC
Assessment method

Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance

SU22
PROC11
inhalation, long-term - local and systemic
Outdoor use
55,08 mg/m³
ECETOC TRA
0,2
2-methoxy-1-methylethyl acetate

Workers (professional)

SU
PROC
Assessment method

Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance

SU22
PROC11
dermal, long-term - local and systemic
Outdoor use
107,14 mg/kg/d
ECETOC TRA
0,7
2-methoxy-1-methylethyl acetate

SU
Assessment method

Exposure assessment
Exposure assessment (method)
Risk characterisation ratio (RCR)
Lead substance
SU
Assessment method

SU21
dermal, long-term - systemic
Indoor use
6 mg/kg/d
ConsExpo v4.1
0,11
2-methoxy-1-methylethyl acetate
SU21
inhalation, long-term - systemic

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Exposure assessment	Indoor use
Exposure assessment (method)	6,83 mg/m ³
Risk characterisation ratio (RCR)	ConsExpo v4.1
Lead substance	0,6
	2-methoxy-1-methylethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	Long-term inhalative
Exposure assessment	242 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

The downstream user can evaluate whether he operates within the conditions set in the exposure scenario on the basis of the information supplied. This evaluation can be conducted by an expert or using the risk assessment tools recommended by ECHA.