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

1.1. Product identifier

Hesse Wiping stain Line effect PEX TD 4217-FT

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 1000
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying
	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
Testphrase

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
Skin Irrit. 2	H315
Eye Dam. 1	H318
STOT SE 3	H335
STOT SE 3	H336
Asp. Tox. 1	H304
Aquatic Chronic 2	H411

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

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H304	May be fatal if swallowed and enters airways.
H411	Toxic 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.
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.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.

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

contains 2-methylpropan-1-ol; Hydrocarbons, C9, aromatics; propan-2-ol; Hydrocarbons, C10, aromatics, <1% naphthalene

Supplemental information

Further supplemental information

Young persons under 18 years may not work with this product.

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

Hydrocarbons, C9, aromatics

CAS No.	128601-23-0				
EINECS no.	918-668-5				
Registration no.	01-2119455851-35				
Concentration	>=	30	<	50	%
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-methylpropan-1-ol

CAS No.	78-83-1				
EINECS no.	201-148-0				
Registration no.	01-2119484609-23				
Concentration	>=	20	<	25	%
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

Hydrocarbons, C10, aromatics, <1% naphthalene

CAS No.	64742-94-5				
EINECS no.	918-811-1				
Registration no.	01-2119463583-34				
Concentration	>=	10	<	20	%
Classification (Regulation (EC) No. 1272/2008)					
	Asp. Tox. 1	H304			
	Aquatic Chronic 2	H411			
	STOT SE 3	H336			Nervous system
		EUH066			

butylglycol acetate

CAS No.	112-07-2				
EINECS no.	203-933-3				
Registration no.	01-2119475112-47				
Concentration	>=	1	<	10	%
Classification (Regulation (EC) No. 1272/2008)					
	Acute Tox. 4	H332			Route of exposure: Inhalation exposure
	Acute Tox. 4	H312			Route of exposure: Dermal exposure
	Acute Tox. 4	H302			Route of exposure: Oral exposure

ATE	Oral exposure	1.880	mg/kg
ATE	Dermal exposure	1.480	mg/kg
ATE	Inhalation exposure, Dust/Mist	5	mg/l

2-butoxyethanol

CAS No.	111-76-2				
EINECS no.	203-905-0				
Registration no.	01-2119475108-36				
Concentration	>= 1	<	6		%
Classification (Regulation (EC) No. 1272/2008)					
	Acute Tox. 4	H302			Route of exposure: Oral exposure
	Acute Tox. 4	H312			Route of exposure: Dermal exposure
	Acute Tox. 4	H332			Route of exposure: Inhalation exposure
	Eye Irrit. 2	H319			
	Skin Irrit. 2	H315			

ATE	Oral exposure	1.200	mg/kg
ATE	Dermal exposure	435	mg/kg
ATE	Inhalation exposure, Dust/Mist	2,56	mg/l

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

Note

For explanation of abbreviations see section 16.

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.

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

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 no 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-butoxyethanol

List	Directive 2017/164 EG			
Value	98	mg/m³	20	ppm(V)
Short term exposure limit	246	mg/m³	50	ppm(V)

Skin resorption / sensibilisation: H; Status: 12/2009

2-butoxyethanol

List	GV (DK)			
Value	98	mg/m³	20	ppm(V)

Skin resorption / sensibilisation: H; Status: 11/2021

propan-2-ol

List	GV (DK)			
Value	490	mg/m³	200	ppm(V)
Status: 11/2021				

2-methylpropan-1-ol

List	GV (DK)			
Value	150	mg/m³	50	ppm(V)
Skin resorption / sensibilisation: H; Status: 11/2021				

butylglycol acetate

List	Directive 2017/164 EG			
Value	133	mg/m³	20	ppm(V)
Short term exposure limit	333	mg/m³	50	ppm(V)
Skin resorption / sensibilisation: H; Status: 12/2009				

butylglycol acetate

List	GV (DK)			
Value	134	mg/m³	20	ppm(V)
Skin resorption / sensibilisation: H; Status: 11/2021				

Other information

-

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-butoxyethanol

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	Acute effects	
Concentration	89	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	Local effects	
Concentration	246	mg/m³

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	75	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	Systemic effects	
Concentration	20	ppm

Type of value	Derived No Effect Level (DNEL)
Reference group	Workers (professional)
Duration of exposure	Short-term

Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	89	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	Local effects	
Concentration	246	mg/m³

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	1091	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	3,2	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	13,4	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	Local effects	
Concentration	123	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Acute effects	
Concentration	44,5	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	Acute effects	
Concentration	426	mg/m³

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	6,3	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	Local effects	
Concentration	106,4	mg/m³

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	38	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	59	mg/m³

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	49	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	26,7	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	135	mg/m³

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	147	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	89	mg/kg/d

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/m³
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/m³
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

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/m³

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/m³

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

butylglycol 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	102	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	Systemic effects	
Concentration	133	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-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	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	775	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	333	mg/m³

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	36	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	4,3	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	67	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	27	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	499	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	18	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	Local effects	
Concentration	166	mg/m³

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

Predicted No Effect Concentration (PNEC)

2-butoxyethanol

Type of value	PNEC	
Type	Freshwater	
Concentration	8,8	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,88	mg/l
Type of value	PNEC	
Type	saltwater sediment	
Concentration	3,46	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	463	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	2,33	mg/kg

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
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

butylglycol acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,304	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,0304	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,56	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	2,03	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,203	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,68	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	90	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.
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	82	to	270	°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.	0,88	to	1	kg/l
Temperature		20	°C		

Relative vapour density

Remarks	not determined

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		20	to	48	s
Temperature		20	°C		
Method	DIN EN ISO 2431 - 3 mm				

Explosive properties

evaluation	not determined

Oxidising properties

Remarks	not determined

Non-volatile content

Value	10,5	%

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 (NOx), 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

ATE	>	10.000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute oral toxicity (Components)

2-butoxyethanol

ATE		1200	mg/kg

butylglycol acetate

Species	rat		
LD50		1880	mg/kg

Acute dermal toxicity

ATE		8.660,8021	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute dermal toxicity (Components)

2-butoxyethanol

Species	guinea pig		
LD50		435	mg/kg
Source	1 (reliable without restriction)		

butylglycol acetate

Species	rabbit		
LD50		1480	mg/kg

Acute inhalational toxicity

ATE	>	20	mg/l
Administration/Form	Dust/Mist		
Method	calculated value (Regulation (EC) No. 1272/2008)		
Remarks	Based on available data, the classification criteria are not met.		

Acute inhalative toxicity (Components)

2-butoxyethanol

Species	rat		
LC50		2,56	mg/l
Duration of exposure		4 h	
Administration/Form	Dust/Mist		
Source	1 (reliable without restriction)		

butylglycol acetate

ATE		5	mg/l
Duration of exposure		4 h	
Administration/Form	Dust/Mist		
Remarks	Mist		

Skin corrosion/irritation

evaluation	irritant
Method	Calculation method (Regulation (EC) No. 1272/2008)

Remarks	The classification criteria are met.

Skin corrosion/irritation (Components)

2-butoxyethanol

Species	rabbit	
Duration of exposure	4	h
Observation Period	28	d
evaluation	Irritating to skin and mucous membranes	
Method	EEC 84/449, B.4	

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)	

Serious eye damage/irritation

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

Serious eye damage/irritation (Components)

2-butoxyethanol

Species	rabbit	
Duration of exposure	24	h
Observation Period	21	d
evaluation	Eye irritation	
Source	1 (reliable without restriction)	

propan-2-ol

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

2-methylpropan-1-ol

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

Sensitization

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

Mutagenicity

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

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.

Specific Target Organ Toxicity (STOT)

Single exposure

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

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

Hydrocarbons, C10, aromatics, <1% naphthalene

Specific target organ toxicity - single exposure

Remarks	Possible narcotic effects (drowsiness, dizziness).

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

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

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

Remarks	Possible narcotic effects (drowsiness, dizziness).

Aspiration hazard

The classification criteria are met.
Harmful: may cause lung damage if swallowed.

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		

Hydrocarbons, C10, aromatics, <1% naphthalene

Species	Daphnia magna (Water flea)			
EC50	1	to	10	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 envrionment

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.

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

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.

SECTION 14: Transport information

	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 (Hydrocarbons, C9, aromatics)	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	 ENVIRONMENTALLY HAZARDOUS	 ENVIRONMENTALLY HAZARDOUS	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

VOC

VOC (EU)	appr.	89	%	809	g/l

MAL-Code

MAL-Code	4-3
MAL	2.822,33 m³/l

Other information

All components are contained in the TSCA inventory or exempted.
All components are contained in the IECSC inventory.

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.
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.
H411	Toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Asp. Tox. 1	Aspiration hazard, Category 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
Skin Irrit. 2	Skin irritation, Category 2
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 theInternational 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 Econpmic 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.
The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES003 - Professional uses: Non industrial spraying (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
PROC11	Non industrial spraying

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. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

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: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 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	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	36,9294 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,376831
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	5,4857 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,043887
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	51,7012 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,527563
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	3,2914 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,026331
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	62 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,632653
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	12,8571 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,632653
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	10 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	21 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,286
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	49,2393 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,502441
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Indoor use

Exposure assessment	2,7429 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,021943
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	7 ppm
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,35
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	14 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,183
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
Exposure assessment	10,5 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,53
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	2,74 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,53
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Exposure assessment	4,20 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic

Exposure assessment	12,85 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	7,00 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	2,74 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,03
Lead substance	butylglycol acetate
SU	SU22
PROC	PROC10
Assessment method	Long-term inhalative
Exposure assessment	185,25 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5976
Lead substance	2-methylpropan-1-ol
SU	SU22
PROC	PROC11
Assessment method	Long-term inhalative
Exposure assessment	256,1 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,8261
Lead substance	2-methylpropan-1-ol
SU	SU22
PROC	PROC13
Assessment method	Long-term inhalative
Exposure assessment	185,25 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5976
Lead substance	2-methylpropan-1-ol

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

ES001 - Industrial applications: industrial spraying (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying

Contributing exposure scenario controlling environmental exposure

Use

ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix

Physical form liquid

Maximum amount used per time or activity

Emission days per site: <= 300

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
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. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

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

Use

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
PROC7	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.

Read attached instructions before use.

Product substance and product safety related measures

Mainly used in closed systems. 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 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 (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - systemic
Exposure assessment	42 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,428571
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC7
Assessment method	dermal, long-term - systemic
Exposure assessment	8,5714 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,068571
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC10
Assessment method	inhalation, long-term - systemic
Exposure assessment	55 mg/m³
Exposure assessment (method)	EASY TRA v3.5
Risk characterisation ratio (RCR)	0,561224
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	5,4857 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,043886
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	49,2393 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,502441
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	2,7429 mg/kg/d
Exposure assessment (method)	EASY TRA v3.5
Risk characterisation ratio (RCR)	0,021943
Lead substance	2-butoxyethanol

Workers (industrial)

PROC	PROC7

Assessment method	inhalation, long-term - systemic
Exposure assessment	5 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,25
Lead substance	butylglycol acetate

Workers (industrial)

PROC	PROC7
Assessment method	dermal, long-term - systemic
Exposure assessment	8,57 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,08
Lead substance	butylglycol acetate

Workers (industrial)

PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	3,00 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,15
Lead substance	butylglycol acetate

Workers (industrial)

PROC	PROC10
Assessment method	dermal, long-term - local and systemic
Exposure assessment	5,49 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,05
Lead substance	butylglycol acetate

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	3,00 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,15
Lead substance	butylglycol acetate

Workers (industrial)

PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	2,74 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,03
Lead substance	butylglycol acetate
SU	SU3
PROC	PROC7
Assessment method	Long-term inhalative
Exposure assessment	0 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0
Lead substance	2-methylpropan-1-ol
SU	SU3
PROC	PROC10
Assessment method	Long-term

	inhalative
Exposure assessment	15,44 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,0498
Lead substance	2-methylpropan-1-ol
SU	SU3
PROC	PROC13
Assessment method	Long-term inhalative
Exposure assessment	15,44 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,0498
Lead substance	2-methylpropan-1-ol

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

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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.

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

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 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	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	36,9294 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,376831
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	5,4857 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,043887
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	51,7012 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,527563
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	3,2914 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,026331
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	62 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,632653
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	12,8571 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,632653
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	10 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
	Outdoor use

Exposure assessment	21 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,286
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	49,2393 mg/m³
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,502441
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	2,7429 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,021943
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Outdoor use
Exposure assessment	7 ppm
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,35
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Outdoor use
Exposure assessment	14 mg/kg/d
Exposure assessment (method)	ESIG GES tool
Risk characterisation ratio (RCR)	0,183
Lead substance	2-butoxyethanol

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
Exposure assessment	10,5 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,53
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22

PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	2,74 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,53
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Exposure assessment	4,20 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
Exposure assessment	12,85 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	7,00 ppm
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,35
Lead substance	butylglycol acetate

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	2,74 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,03
Lead substance	butylglycol acetate
SU	SU22
PROC	PROC10
Assessment method	Long-term inhalative
Exposure assessment	185,25 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5976
Lead substance	2-methylpropan-1-ol
SU	SU22
PROC	PROC11
Assessment method	Long-term inhalative
Exposure assessment	256,1 mg/m³

Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,8261
Lead substance	2-methylpropan-1-ol
SU	SU22
PROC	PROC13
Assessment method	Long-term inhalative
Exposure assessment	185,25 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5976
Lead substance	2-methylpropan-1-ol

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