

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

Version: 21 / DK

Revision: 30.11.2022

Replaces Version: 20 / DK

Print date: 13.01.23

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

### 1.1. Product identifier

Hesse PU Colour lacquer PEX DB 4635X-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

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SU3	REACHSET 1000
ERC4	Industrial uses: Uses of substances as such or in preparations at industrial sites
	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

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REACHSET 1001

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
PROC13	Treatment of articles by dipping and pouring

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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

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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

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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

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

#### Labelling according to regulation (EC) No 1272/2008

##### Hazard pictograms



##### Signal word

Danger

##### Hazard statements

H225 Highly flammable liquid and vapour.  
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.  
P308+P313 IF exposed or concerned: Get medical advice/ attention.

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

contains n-butyl acetate; 2-methoxy-1-methylethyl acetate; isobutyl acetate; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

EUH208 Contains 12-hydroxy-N-[6-(12-hydroxyoctadecanamido)hexyl]octadecanamide, May produce an allergic reaction.

##### Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

##### Further supplemental information

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

### 2.3. Other hazards

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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	

#### 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	

#### isobutyl acetate

CAS No.	110-19-0			
EINECS no.	203-745-1			
Registration no.	01-2119488971-22			
Concentration	>= 1	<	10	%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2		H225	
	STOT SE 3		H336	Nervous system
			EUH066	

#### Hydrocarbons, C9, aromatics

CAS No.	128601-23-0			
EINECS no.	918-668-5			
Registration no.	01-2119455851-35			
Concentration	>= 1	<	3	%
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	

#### xylene

CAS No.	1330-20-7
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EINECS no. 215-535-7  
 Registration no. 01-2119488216-32  
 Concentration  $\geq 1$  < 10 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Flam. Liq. 3 H226  
 Acute Tox. 4 H332 Route of exposure: Inhalation exposure  
 Acute Tox. 4 H312 Route of exposure: Dermal exposure  
 Skin Irrit. 2 H315  
 Asp. Tox. 1 H304  
 STOT SE 3 H335 Respiratory tract; Route of exposure: inhalative  
 Eye Irrit. 2 H319

ATE Dermal exposure 2.000 mg/kg  
 ATE Inhalation exposure, Dust/Mist 5 mg/l

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

CAS No. 64742-48-9  
 EINECS no. 919-857-5  
 Registration no. 01-2119463258-33  
 Concentration  $\geq 1$  < 10 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Flam. Liq. 3 H226  
 Asp. Tox. 1 H304  
 STOT SE 3 H336 Nervous system  
 EUH066

**12-hydroxy-N-[6-(12-hydroxyoctadecanamido)hexyl]octadecanamide**

EINECS no. 434-430-9  
 Registration no. 01-0000018057-71  
 Concentration  $\geq 0,1$  < 1 %  
 Classification (Regulation (EC) No. 1272/2008)  
 Skin Sens. 1 H317  
 Aquatic Chronic 4 H413

**cellulose nitrate < =12.6 % N**

CAS No. 9004-70-0  
 Classification (Regulation (EC) No. 1272/2008)  
 Expl. 1.1 H201

**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**

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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, CO<sub>2</sub>, 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**

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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 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**

n-butyl acetate

List

GV (DK)

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Value	241	mg/m <sup>3</sup>	50	ppm(V)
Status: 11/2021				

**n-butyl acetate**

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

**2-methoxy-1-methylethyl acetate**

List	GV (DK)			
Value	275	mg/m <sup>3</sup>	50	ppm(V)
Skin resorption / sensibilisation: H; Status: 11/2021				

**2-methoxy-1-methylethyl acetate**

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

**xylene**

List	GV (DK)			
Value	109	mg/m <sup>3</sup>	25	ppm(V)
Skin resorption / sensibilisation: H; Status: 11/2021				

**xylene**

List	Directive 2017/164 EG			
Value	221	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	442	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation: H; Status: 12/2009				

**isobutyl acetate**

List	GV (DK)			
Value	241	mg/m <sup>3</sup>	50	ppm(V)
Status: 11/2021				

**isobutyl acetate**

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

**Other information**

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**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 <sup>3</sup>

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		



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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

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/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 54,8 mg/kg

**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/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 Local effects

Concentration 600 mg/m³

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/m³

Type of value Derived No Effect Level (DNEL)



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Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m <sup>3</sup>
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 <sup>3</sup>
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 <sup>3</sup>
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 <sup>3</sup>
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 <sup>3</sup>
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	

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Concentration 2 mg/kg/d

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

#### **xylene**

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 125 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 212 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 65,3 mg/m<sup>3</sup>

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 260 mg/m<sup>3</sup>

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 174 mg/m<sup>3</sup>

Type of value Derived No Effect Level (DNEL)

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Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	442	mg/m <sup>3</sup>

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	221	mg/m <sup>3</sup>

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	289	mg/m <sup>3</sup>

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	289	mg/m <sup>3</sup>

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	12,5	mg/kg/d

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	Local effects	
Concentration	174	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	

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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

**isobutyl 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	10	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	300	mg/m <sup>3</sup>

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 <sup>3</sup>

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	5	mg/kg/d

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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 <sup>3</sup>

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 <sup>3</sup>

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 <sup>3</sup>

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 <sup>3</sup>

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 <sup>3</sup>

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 <sup>3</sup>

**Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Concentration	125	mg/kg

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

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Concentration	208	mg/kg
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Type of value	Derived No Effect Level (DNEL)
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Reference group	Consumer
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Duration of exposure	Long-term
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Route of exposure	Dermal exposure
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Concentration	125	mg/kg
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Type of value	Derived No Effect Level (DNEL)
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Reference group	Workers (professional)
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Duration of exposure	Long-term
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Route of exposure	inhalative
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Concentration	871	mg/kg
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Type of value	Derived No Effect Level (DNEL)
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Reference group	Consumer
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Duration of exposure	Long-term
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Route of exposure	inhalative
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Concentration	185	mg/kg
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### **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
---------------	-----	------

#### **n-butyl acetate**

Type of value	PNEC
---------------	------

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Type	Freshwater	
Concentration	0,18	mg/l
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
<b>xylene</b>		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,327	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,327	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	12,46	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	12,46	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,31	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	6,58	mg/l



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#### **isobutyl acetate**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,17	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,017	mg/l
Type of value	PNEC	
Type	Water	
Conditions	sporadic release	
Concentration	0,34	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	200	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,877	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,0877	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0755	mg/kg

## **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  $\geq$  0,7 mm

Breakthrough time  $\geq$  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.

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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 200 °C

### Flammability

not determined

### Upper and lower explosive limits

Remarks not determined

### Flash point

Value 21 to 22 °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. 1,007 kg/l  
Temperature 20 °C

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#### 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 40 to 50 s

Temperature 20 °C

Method DIN 53211 4 mm

#### Explosive properties

evaluation not determined

#### Oxidising properties

Remarks not determined

#### Non-volatile content

Value 35,5 %

#### 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 (NO<sub>x</sub>), dense black smoke, No decomposition if used as prescribed.

## SECTION 11: Toxicological information

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

### Acute oral toxicity

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

### Acute dermal 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 dermal toxicity (Components)

#### xylene

ATE	2000	mg/kg
Source	alle Daten über 2000 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)

#### xylene

ATE	5	mg/l
Duration of exposure	4	h
Administration/Form	Dust/Mist	
Source	alle Werte über 5 mg/l	

### 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)

#### xylene

Species	rabbit
Observation Period	72 h
evaluation	Irritating to skin.
Source	2 (reliable with restrictions)

### Serious eye damage/irritation

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

### Serious eye damage/irritation (Components)

#### xylene

Species	rabbit
evaluation	Irritating to eyes.
Source	2 (reliable with restrictions)

### Sensitization

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

### Sensitization (Components)

12-hydroxy-N-[6-(12-hydroxyoctadecanamido)hexyl]octadecanamide

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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.

### 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 drowsiness or dizziness.

#### Repeated exposure

Remarks

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

### Specific Target Organ Toxicity (STOT) (Components)

#### n-butyl acetate

##### Specific target organ toxicity - repeated exposure

Organs: Nervous system

Remarks

Possible narcotic effects (drowsiness, dizziness).

#### xylene

##### Specific target organ toxicity - single exposure

Route of exposure inhalative

Organs: Respiratory tract

Remarks

May cause respiratory irritation.

#### 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).

#### 2-methoxy-1-methylethyl acetate

##### Specific target organ toxicity - repeated exposure

evaluation

May cause drowsiness or dizziness.

Organs: Nervous system

#### isobutyl acetate

##### Specific target organ toxicity - repeated exposure

Organs: Nervous system

Remarks

Possible narcotic effects (drowsiness, dizziness).

#### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

##### Specific target organ toxicity - repeated exposure

Organs: Nervous system

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Remarks

Possible narcotic effects (drowsiness, dizziness).

### 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	

##### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Species	Daphnia magna (Water flea)		
EC50	22	46	mg/l
Duration of exposure	48	h	
Method	OECD 202, part 1, static		

##### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Species	Daphnia magna (Water flea)		
NOELR	0,23		mg/l
Duration of exposure	21	d	
Method	QSAR modelled data		

#### 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

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

### **Biodegradability (Components)**

#### **Hydrocarbons, C9, aromatics**

evaluation Readily biodegradable.

#### **Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics**

Value 53,4 %

Duration of test 28 d

evaluation Not 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.

#### **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.



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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	PAINT
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Special provision	640D		
Limited Quantity	5 I		
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

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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.

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**

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.

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### 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

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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 (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	27,54 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - local and systemic
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 (industrial)

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU	SU3
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

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Lead substance

2-methoxy-1-methylethyl acetate

**Workers (industrial)**

SU

SU3

PROC

PROC13

Assessment method

inhalation, long-term - local and systemic

Exposure assessment

55,08 mg/m<sup>3</sup>

Exposure assessment (method)

ECETOC TRA

Risk characterisation ratio (RCR)

0,2

Lead substance

2-methoxy-1-methylethyl acetate

**Workers (industrial)**

SU

SU3

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 (industrial)**

PROC

PROC7

Assessment method

inhalation, long-term - local and systemic

Exposure assessment

60,5 mg/m<sup>3</sup>

Exposure assessment (method)

ECETOC TRA

Risk characterisation ratio (RCR)

0,126

Lead substance

n-butyl acetate

**Workers (industrial)**

PROC

PROC10

Assessment method

inhalation, long-term - systemic

Exposure assessment

242 mg/m<sup>3</sup>

Exposure assessment (method)

ECETOC TRA

Risk characterisation ratio (RCR)

0,504

Lead substance

n-butyl acetate

**Workers (industrial)**

PROC

PROC10

Assessment method

inhalation, long-term - systemic

Exposure assessment

242 mg/m<sup>3</sup>

Exposure assessment (method)

ECETOC TRA

Risk characterisation ratio (RCR)

0,504

Lead substance

n-butyl acetate

**Workers (industrial)**

PROC

PROC13

Assessment method

inhalation, long-term - systemic

Exposure assessment

242 mg/m<sup>3</sup>

Exposure assessment (method)

ECETOC TRA

Risk characterisation ratio (RCR)

0,504

Lead substance

n-butyl acetate

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

SU  
PROC  
Assessment method

PROC13  
inhalation, long-term - systemic  
Outdoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

SU3  
PROC7  
inhalation, long-term - systemic  
Indoor use  
0,75  
4-methylpentan-2-one

SU3  
PROC7  
dermal, long-term - systemic  
Indoor use  
0,5  
4-methylpentan-2-one

SU3  
PROC10  
inhalation, long-term - systemic  
Indoor use  
0,5  
4-methylpentan-2-one

SU3  
PROC10  
dermal, long-term - systemic  
0,5  
4-methylpentan-2-one

SU3  
PROC13  
inhalation, long-term - systemic  
0,5  
4-methylpentan-2-one

SU3  
PROC13  
dermal, long-term - systemic  
0,5  
4-methylpentan-2-one

SU3  
PROC7  
inhalative



Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

Version: 21 / DK

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Exposure assessment	Indoor use
Exposure assessment (method)	0,1 mg/m <sup>3</sup>
Risk characterisation ratio (RCR)	ECETOC TRA
Lead substance	0,34
	xylene

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

## **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**

ES002 - Industrial applications: rolling, dipping, pouring and other processing without aerosol formation (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
PROCh01	Other processing without aerosol formation
PROCh02	roller coating industrial
PROC13	Treatment of articles by dipping and pouring

## **Contributing exposure scenario controlling environmental exposure**

### **Use**

ERC4	Industrial use of processing aids in processes and products, not becoming part of
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Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

Version: 21 / DK

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Print date: 13.01.23

ERC5 articles  
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.

**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  
PROCh01 Other processing without aerosol formation  
PROCh02 roller coating industrial  
PROC13 Treatment of articles by dipping and pouring

**Physical form** liquid

**Maximum amount used per time or activity**

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

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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### 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

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  $\geq$  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 (industrial)

SU

PROC

Assessment method

Exposure assessment

Exposure assessment (method)

Risk characterisation ratio (RCR)

Lead substance

SU3

PROC7

inhalation, long-term - local and systemic

27,54 mg/m<sup>3</sup>

ECETOC TRA

0,1

2-methoxy-1-methylethyl acetate

### Workers (industrial)

SU

PROC

Assessment method

SU3

PROC7

dermal, long-term - local and systemic

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

Version: 21 / DK

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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 (industrial)**

SU	SU3	
PROC	PROC10	
Assessment method	inhalation, long-term - local and systemic	
Exposure assessment	55,08	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,2	
Lead substance	2-methoxy-1-methylethyl acetate	

**Workers (industrial)**

SU	SU3	
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 (industrial)**

SU	SU3	
PROC	PROC13	
Assessment method	inhalation, long-term - local and systemic	
Exposure assessment	55,08	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,2	
Lead substance	2-methoxy-1-methylethyl acetate	

**Workers (industrial)**

SU	SU3	
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 (industrial)**

PROC	PROC7	
Assessment method	inhalation, long-term - local and systemic	
	Indoor use	
Exposure assessment	60,5	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,126	
Lead substance	n-butyl acetate	

**Workers (industrial)**

PROC	PROC10	
Assessment method	inhalation, long-term - systemic	
	Indoor use	
Exposure assessment	242	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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Print date: 13.01.23

Risk characterisation ratio (RCR) 0,504

Lead substance n-butyl acetate

**Workers (industrial)**

PROC PROC10  
Assessment method inhalation, long-term - systemic

Outdoor use

Exposure assessment 242 mg/m<sup>3</sup>

Exposure assessment (method) ECETOC TRA

Risk characterisation ratio (RCR) 0,504

Lead substance n-butyl acetate

**Workers (industrial)**

PROC PROC13  
Assessment method inhalation, long-term - systemic

Indoor use

Exposure assessment 242 mg/m<sup>3</sup>

Exposure assessment (method) ECETOC TRA

Risk characterisation ratio (RCR) 0,504

Lead substance n-butyl acetate

**Workers (industrial)**

PROC PROC13  
Assessment method inhalation, long-term - systemic

Outdoor use

Exposure assessment 242 mg/m<sup>3</sup>

Exposure assessment (method) ECETOC TRA

Risk characterisation ratio (RCR) 0,504

Lead substance n-butyl acetate

**Workers (industrial)**

SU SU3  
PROC PROC7  
Assessment method inhalation, long-term - systemic

Indoor use

Risk characterisation ratio (RCR) 0,75

Lead substance 4-methylpentan-2-one

**Workers (industrial)**

SU SU3  
PROC PROC7  
Assessment method dermal, long-term - systemic

Indoor use

Risk characterisation ratio (RCR) 0,5

Lead substance 4-methylpentan-2-one

**Workers (industrial)**

SU SU3  
PROC PROC10  
Assessment method inhalation, long-term - systemic

Indoor use

Risk characterisation ratio (RCR) 0,5

Lead substance 4-methylpentan-2-one

**Workers (industrial)**

SU SU3  
PROC PROC10

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC13
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC7
Assessment method	inhalative
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC10
Assessment method	inhalative
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC13
Assessment method	inhalative
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

## **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.

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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Replaces Version: 20 / DK

Print date: 13.01.23

## **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



Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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Print date: 13.01.23

### 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.

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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.

## 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 <sup>3</sup>
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 <sup>3</sup>
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
	Indoor use
Exposure assessment	27,54 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1

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Lead substance

2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU

SU22

PROC

PROC11

Assessment method

dermal, long-term - local and systemic

Exposure assessment

Indoor use

Exposure assessment (method)

2,14 mg/kg/d

Risk characterisation ratio (RCR)

ECETOC TRA

Lead substance

0,01

2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU

SU22

PROC

PROC11

Assessment method

inhalation, long-term - local and systemic

Exposure assessment

Outdoor use

Exposure assessment (method)

55,08 mg/m<sup>3</sup>

Risk characterisation ratio (RCR)

ECETOC TRA

Lead substance

0,2

2-methoxy-1-methylethyl acetate

**Workers (professional)**

SU

SU22

PROC

PROC11

Assessment method

dermal, long-term - local and systemic

Exposure assessment

Outdoor use

Exposure assessment (method)

107,14 mg/kg/d

Risk characterisation ratio (RCR)

ECETOC TRA

Lead substance

0,7

2-methoxy-1-methylethyl acetate

SU

SU21

Assessment method

dermal, long-term - systemic

Exposure assessment

Indoor use

Exposure assessment (method)

6 mg/kg/d

Risk characterisation ratio (RCR)

ConsExpo v4.1

Lead substance

0,11

2-methoxy-1-methylethyl acetate

SU

SU21

Assessment method

inhalation, long-term - systemic

Exposure assessment

Indoor use

Exposure assessment (method)

6,83 mg/m<sup>3</sup>

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

Exposure assessment

inhalative

Exposure assessment (method)

242 mg/m<sup>3</sup>

Risk characterisation ratio (RCR)

ECETOC TRA

Lead substance

0,504

n-butyl acetate

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,1
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,75
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalative
	Indoor use

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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Exposure assessment	0,1	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,34	
Lead substance	xylene	

#### **Workers (professional)**

SU	SU22	
PROC	PROC13	
Assessment method	inhalative	
	Indoor use	
Exposure assessment	0,05	mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA	
Risk characterisation ratio (RCR)	0,172	
Lead substance	xylene	

## **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.

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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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
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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.

### **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.

Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

Version: 21 / DK

Revision: 30.11.2022

Replaces Version: 20 / DK

Print date: 13.01.23

## 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  $\geq$  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 <sup>3</sup>
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



Trade name: Hesse PU Colour lacquer PEX DB 4635X-FT

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**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	137,71 mg/m <sup>3</sup>
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
	Indoor use
Exposure assessment	27,54 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1
Lead substance	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 <sup>3</sup>
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



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Risk characterisation ratio (RCR)	0,7
Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	dermal, long-term - systemic
Exposure assessment	Indoor use
Exposure assessment (method)	6 mg/kg/d
Risk characterisation ratio (RCR)	ConsExpo v4.1
Lead substance	0,11
SU	2-methoxy-1-methylethyl acetate
Assessment method	SU21
Exposure assessment	inhalation, long-term - systemic
Exposure assessment (method)	Indoor use
Risk characterisation ratio (RCR)	6,83 mg/m <sup>3</sup>
Lead substance	ConsExpo v4.1
SU	0,6
Assessment method	2-methoxy-1-methylethyl acetate

**Workers (professional)**

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

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,1
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (professional)**

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

SU22  
PROC13  
inhalation, long-term - systemic  
0,75  
4-methylpentan-2-one

**Workers (professional)**

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

SU22  
PROC13  
dermal, long-term - systemic  
0,5  
4-methylpentan-2-one

**Workers (professional)**

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

SU22  
PROC10  
inhalative  
Indoor use  
0,05 mg/m<sup>3</sup>  
ECETOC TRA  
0,172  
xylene

**Workers (professional)**

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

SU22  
PROC11  
inhalative  
Indoor use  
0,1 mg/m<sup>3</sup>  
ECETOC TRA  
0,34  
xylene

**Workers (professional)**

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

SU22  
PROC13  
inhalative  
Indoor use  
0,05 mg/m<sup>3</sup>  
ECETOC TRA  
0,172  
xylene

## **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.