

Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

Version: 24 / ZA

Revision: 25.02.2025

Replaces Version: 23 / ZA

Print date: 01.12.25

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

### 1.1. Product identifier

Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-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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	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
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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

## 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

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Eye Irrit. 2	H319
Repr. 2	H361d
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.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child.
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.
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.

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

contains	toluene; 2-methylpropan-1-ol; acetone; ethyl acetate
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#### Supplemental information

EUH066	Repeated exposure may cause skin dryness or cracking.
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## 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### Hazardous ingredients

n-butyl acetate	
CAS No.	123-86-4

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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		

**isobutyl acetate**

CAS No.	110-19-0			
EINECS no.	203-745-1			
Registration no.	01-2119488971-22			
Concentration	>= 10	< 20	%	
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2	H225		
	STOT SE 3	H336		Nervous system
		EUH066		

**ethyl acetate**

CAS No.	141-78-6			
EINECS no.	205-500-4			
Registration no.	01-2119475103-46			
Concentration	>= 10	< 20	%	
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2	H225		
	Eye Irrit. 2	H319		
	STOT SE 3	H336		Nervous system
		EUH066		

**acetone**

CAS No.	67-64-1			
EINECS no.	200-662-2			
Registration no.	01-2119471330-49			
Concentration	>= 1	< 10	%	
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2	H225		
	Eye Irrit. 2	H319		
	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	>= 3	< 10	%	
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 3	H226		
	Asp. Tox. 1	H304		
	Aquatic Chronic 2	H411		
	STOT SE 3	H335		Respiratory tract
	STOT SE 3	H336		Nervous system
		EUH066		

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**toluene**

CAS No.	108-88-3		
EINECS no.	203-625-9		
Registration no.	01-2119471310-51		
Concentration	>= 3	< 4	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 2	H225	
	Repr. 2	H361d	
	Asp. Tox. 1	H304	
	STOT RE 2	H373	
	Skin Irrit. 2	H315	
	STOT SE 3	H336	Nervous system

**2-methylpropan-1-ol**

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

**xylene**

CAS No.	1330-20-7		
EINECS no.	215-535-7		
Registration no.	01-2119488216-32		
Concentration	>= 1	< 2	%
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

**Naphtha (petroleum), hydrotreated heavy**

CAS No.	64742-48-9		
EINECS no.	918-481-9		
Registration no.	01-02119457273-39		
Concentration	>= 1	< 10	%
Classification (Regulation (EC) No. 1272/2008)			
	Asp. Tox. 1	H304	

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## Further ingredients

### aluminium powder (stabilised)

CAS No.	7429-90-5				
EINECS no.	231-072-3				
Registration no.	01-2119529243-45				
Concentration	>= 1	<	10	%	
Advice: [3]					
Classification (Regulation (EC) No. 1272/2008)					
	Water-react. 2				H261
	Flam. Sol. 1				H228

### Note

[3] Substance with occupational exposure limits

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

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

#### After inhalation

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

#### After skin contact

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

#### After eye contact

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

#### 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

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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 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.

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## 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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limit values

##### 2-methylpropan-1-ol

List	OEL (ZA)		
Value		100	ppm(V)
Status: 03/2021			

##### acetone

List	OEL (ZA)		
Value		500	ppm(V)
Short term exposure limit		1000	ppm(V)
Status: 03/2021			

##### acetone

List	OEL		
Type	BAT		
Value	25	mg/l	
Status: 03/2021			

##### ethyl acetate

List	OEL (ZA)		
Value		800	ppm(V)
Status: 03/2021			

##### n-butyl acetate

List	OEL (ZA)		
Value		100	ppm(V)
Short term exposure limit		300	ppm(V)
Status: 03/2021			

##### toluene

List	OEL (ZA)		
Value		40	ppm(V)
Skin resorption / sensibilisation: Sk; Status: 03/2021			

##### toluene

List	OEL		
Type	BAT		
Value	0,3	mg/g	

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Short term exposure limit      0,003      creatinine  
Status: 03/2021      mg/l

**xylene**

List      OEL (ZA)  
Value      200      ppm(V)  
Short term exposure limit      300      ppm(V)  
Skin resorption / sensibilisation: Sk;      Status: 03/2021

**xylene**

List      OEL  
Type      BAT  
Value      1,5      g/g Kreatinin  
Status: 03/2021

**Other information**

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**Derived No/Minimal Effect Levels (DNEL/DMEL)**

**2-methylpropan-1-ol**

Type of value      Derived No Effect Level (DNEL)  
Reference group      Workers (professional)  
Duration of exposure      Long-term  
Route of exposure      inhalative  
Mode of action      Local effects  
Concentration      310      mg/m<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      55      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      Local effects  
Concentration      25      mg/kg/d

**acetone**

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      1210      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	186	mg/kg/d
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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	Short-term
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Route of exposure	inhalative
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Mode of action	Local effects
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Concentration	2420	mg/m <sup>3</sup>
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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	Short-term
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Route of exposure	inhalative
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Mode of action	Systemic effects
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Concentration	1210	mg/m <sup>3</sup>
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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	Oral exposure
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Mode of action	Systemic effects
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Concentration	62	mg/kg/d
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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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Mode of action	Systemic effects
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Concentration	62	mg/kg/d
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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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Mode of action	Systemic effects
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Concentration	200	mg/m <sup>3</sup>
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**ethyl acetate**

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	Dermal exposure
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Mode of action	Systemic effects
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Concentration	63	mg/kg/d
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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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Mode of action	Systemic effects
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Concentration	734	mg/m <sup>3</sup>
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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	734	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	1468	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	1468	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	734	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	734	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	37	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	367	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	

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Concentration	4,5	mg/kg/d
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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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Mode of action	Local effects
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Concentration	367	mg/m <sup>3</sup>
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Type of value	Derived No Effect Level (DNEL)
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Reference group	Worker
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Duration of exposure	Long term
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Route of exposure	dermal
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Mode of action	Local effects
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Concentration	63	mg/kg
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**isobutyl acetate**

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	Dermal exposure
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Mode of action	Systemic effects
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Concentration	10	mg/kg/d
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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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Mode of action	Systemic effects
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Concentration	300	mg/m <sup>3</sup>
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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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Mode of action	Local effects
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Concentration	300	mg/m <sup>3</sup>
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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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Mode of action	Systemic effects
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Concentration	5	mg/kg/d
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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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Mode of action	Systemic effects
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Concentration	35,7	mg/m <sup>3</sup>
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Type of value	Derived No Effect Level (DNEL)
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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>

**n-butyl acetate**

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

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

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

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Mode of action	Local effects	
Concentration	600	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	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)	

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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	
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

**toluene**

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	343	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	384	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	192	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	

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Mode of action	Systemic effects	
Concentration	192	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	384	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	226	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	226	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	56,5	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	226	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	8,13	mg/kg/d
<b>xylene</b>		
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

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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)	
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	



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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
<b>Hydrocarbons, C9, aromatics</b>		
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

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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	Local effects	
Concentration	11	mg/kg

#### **aluminium powder (stabilised)**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	3,72	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	3,72	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	
Mode of action	Systemic effects	
Concentration	7,9	mg/kg/d

#### **Predicted No Effect Concentration (PNEC)**

##### **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	
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Type	Soil	
Concentration	0,0699	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

**acetone**

Type of value	PNEC	
Type	Freshwater	
Concentration	10,6	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	1,06	mg/l

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	30,4	mg/kg

Type of value	PNEC	
Type	saltwater sediment	
Concentration	3,04	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	29,5	mg/kg

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

Type of value	PNEC	
Conditions	sporadic release	
Concentration	21	mg/l

**ethyl acetate**

Type of value	PNEC	
Type	Saltwater	
Concentration	0,026	mg/l

Type of value	PNEC	
Type	Freshwater	
Concentration	0,26	mg/l

Type of value	PNEC	
Type	Soil	
Concentration	0,24	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	650	mg/l



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Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,125	mg/kg

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	1,25	mg/kg

Type of value	PNEC	
Conditions	sporadic release	
Concentration	1,65	mg/l

**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

**n-butyl acetate**

Type of value	PNEC	
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)	

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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>toluene</b>		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,68	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	16,39	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,89	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	13,61	mg/l
<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

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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

**aluminium powder (stabilised)**

Type of value	PNEC	
Type	Freshwater	
Concentration	0,0749	mg/l

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	20	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

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.

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.

### 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

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<b>Colour</b>	coloured
<b>Odour</b>	solvent-like
<b>Melting point</b>	
Remarks	not determined
<b>Freezing point</b>	
Remarks	not determined
<b>Boiling point or initial boiling point and boiling range</b>	
Value	55,8 to 214 °C
<b>Flammability</b>	not determined
<b>Upper and lower explosive limits</b>	
Remarks	not determined
<b>Flash point</b>	
Value	< 21 °C
<b>Auto-ignition temperature</b>	
Remarks	not determined
<b>Decomposition temperature</b>	
Remarks	not determined
<b>pH value</b>	
Remarks	Not applicable
<b>Viscosity</b>	
Remarks	not determined
<b>Solubility(ies)</b>	
Remarks	not determined
<b>Partition coefficient n-octanol/water (log value)</b>	
Remarks	not determined
<b>Vapour pressure</b>	
Remarks	not determined
<b>Density and/or relative density</b>	
Value	appr. 0,95 kg/l
Temperature	20 °C
<b>Relative vapour density</b>	
Remarks	not determined
<b>Particle characteristics</b>	
Remarks	not determined

## 9.2. Other information

<b>Odour threshold</b>	
Remarks	not determined
<b>Evaporation rate</b>	
Remarks	not determined
<b>Solubility in water</b>	
Remarks	not determined

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#### Efflux time

Value	36	to	54	s
Temperature	20	°C		
Method	DIN 53211 4 mm			

#### Explosive properties

evaluation not determined

#### Oxidising properties

Remarks not determined

#### Non-volatile content

Value	29,5	%
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#### 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

#### 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)	

##### Acute dermal toxicity (Components)

###### xylene

ATE	2000	mg/kg
Source	alle Daten über 2000 mg/kg	

##### Acute inhalational toxicity



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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)

##### 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)

##### toluene

Species	rabbit
Duration of exposure	4 h
Observation Period	7 d
evaluation	Irritating to skin.
Method	EEC 84/449, B.4
Source	1 (reliable without restriction)

##### xylene

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

#### Serious eye damage/irritation

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

#### Serious eye damage/irritation (Components)

##### 2-methylpropan-1-ol

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

##### acetone

Species	rabbit
Observation Period	24 h
evaluation	Irritating to eyes.
Source	1 (reliable without restriction)

##### ethyl acetate

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Species rabbit  
Observation Period 24 h  
evaluation Irritating to eyes.  
Source 2 (reliable with restrictions)

#### **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.

#### **Mutagenicity**

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

#### **Reproductive toxicity**

evaluation Suspected of damaging the unborn child.  
Method Calculation method (Regulation (EC) No. 1272/2008)  
Remarks The classification criteria are met.

#### **Reproduction toxicity (Components)**

##### **toluene**

evaluation Reproductive toxicity, Category 2

#### **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)**

##### **2-methylpropan-1-ol**

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

Remarks Organs: Respiratory tract  
May cause respiratory irritation.

##### **2-methylpropan-1-ol**

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

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

##### **acetone**

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

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

##### **ethyl acetate**

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**Specific target organ toxicity - single exposure**

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

**isobutyl acetate**

**Specific target organ toxicity - repeated exposure**

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

**n-butyl acetate**

**Specific target organ toxicity - repeated exposure**

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

**toluene**

**Specific target organ toxicity - single exposure**

Remarks  
Organs: Liver  
May cause damage to organs through prolonged or repeated exposure:

**toluene**

**Specific target organ toxicity - repeated exposure**

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

**xylene**

**Specific target organ toxicity - single exposure**

Remarks  
Route of exposure inhalative  
Organs: Respiratory tract  
May cause respiratory irritation.

**Hydrocarbons, C9, aromatics**

**Specific target organ toxicity - single exposure**

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

**Hydrocarbons, C9, aromatics**

**Specific target organ toxicity - single exposure**

Remarks  
Possible narcotic effects (drowsiness, dizziness).

**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.

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### 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	

### 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



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### **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**

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

#### **Disposal recommendations for packaging**

Completely emptied packagings can be given for recycling.

## **SECTION 14: Transport information**




Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	PAINT
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Special provision	640C		
Remarks	The product is viscous; packing group III in containers with not more than 450 ltrs.	The product is viscous; packing group III in containers with not more than 450 ltrs.	Transport in accordance with 3.3.3.1 of the IATA regulations
Limited Quantity	5 l		
Transport category	2		
14.5. Environmental hazards	-		

## Information for all modes of transport

### 14.6. Special precautions for user

See Sections 6 to 8

## Other information

### 14.7. Maritime transport in bulk according to IMO instruments

Not relevant

## SECTION 15: Regulatory information

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

#### Major-accident categories acc. 2012/18/EU

Category P5c FLAMMABLE LIQUID 5.000.000 kg 50.000.000 kg

Restriction according to annex XVII to regulation (EU) No 1907/2006

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The product is subject to restrictions according to Annex XVII Regulation (EU) No. 1907/2006: Entry No. 3.

## 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.
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.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3
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)

Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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### 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

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

#### Disposal recommendations for packaging

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



Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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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**

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.

### **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)**

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	isobutyl acetate

### **Workers (industrial)**

PROC	PROC10
Assessment method	inhalation, long-term - local and systemic Indoor use
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

### **Workers (industrial)**

Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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PROC  
Assessment method

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

**Workers (industrial)**

PROC  
Assessment method

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

**Workers (industrial)**

PROC  
Assessment method

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

**Workers (industrial)**

PROC  
Assessment method

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

**Workers (industrial)**

PROC  
Assessment method

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

**Workers (industrial)**

PROC  
Assessment method

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

**Workers (industrial)**

SU  
PROC

PROC13  
inhalation, long-term - local and systemic  
Indoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
isobutyl acetate

PROC7  
inhalation, long-term - local and systemic  
Indoor use  
60,5 mg/m<sup>3</sup>  
ECETOC TRA  
0,126  
n-butyl acetate

PROC10  
inhalation, long-term - systemic  
Indoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

PROC10  
inhalation, long-term - systemic  
Outdoor use  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

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

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

SU3  
PROC7

Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,05
Lead substance	acetone

**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	62 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	acetone

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	acetone

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	62 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,15
Lead substance	acetone

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	acetone

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	dermal, long-term - systemic
	Indoor use
Exposure assessment	61 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,074
Lead substance	acetone

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**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - systemic
Exposure assessment	63 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,034
Lead substance	ethyl acetate

**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - local
Exposure assessment	734 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,075
Lead substance	ethyl acetate

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	63 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,011
Lead substance	ethyl acetate

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - local
Exposure assessment	734 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,075
Lead substance	ethyl acetate

**Workers (industrial)**

SU	SU3
PROC	PROC7
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

**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

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### 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
SU	SU3
PROC	PROC7
Assessment method	Long-term
	inhalative
Exposure assessment	0 mg/m <sup>3</sup>
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/m <sup>3</sup>
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/m <sup>3</sup>
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

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

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

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ERC8c  
PROC11

Wide dispersive indoor use resulting in inclusion into or onto a matrix  
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**

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

### **Disposal recommendations for packaging**

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.

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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**

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.

### **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	PROC11
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

### **Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic
	Outdoor use
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

### **Workers (professional)**



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

SU22  
PROC11  
Long-term  
inhalative  
242 mg/m<sup>3</sup>  
ECETOC TRA  
0,504  
n-butyl acetate

**Workers (professional)**

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

SU22  
PROC10  
inhalation, long-term - systemic  
200 mg/m<sup>3</sup>  
ECETOC TRA  
0,6  
acetone

**Workers (professional)**

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

SU22  
PROC10  
dermal, long-term - systemic  
62 mg/kg/d  
ECETOC TRA  
0,15  
acetone

**Workers (professional)**

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

SU22  
PROC11  
inhalation, long-term - systemic  
200 mg/m<sup>3</sup>  
ECETOC TRA  
0,4  
acetone

**Workers (professional)**

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

SU22  
PROC11  
dermal, long-term - systemic  
62 mg/kg/d  
ECETOC TRA  
0,01  
acetone

**Workers (professional)**

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

SU22  
PROC13  
inhalation, long-term - systemic  
200 mg/m<sup>3</sup>  
ECETOC TRA  
0,5  
acetone

**Workers (professional)**

SU

SU22



Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

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

PROC13  
dermal, long-term - systemic  
62 mg/kg/d  
ECETOC TRA  
0,07  
acetone

**Workers (professional)**

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

SU22  
PROC10  
dermal, long-term - systemic  
63 mg/kg/d  
ECETOC TRA  
0,022  
ethyl acetate

**Workers (professional)**

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

SU22  
PROC10  
inhalation, long-term - local  
734 mg/m<sup>3</sup>  
ECETOC TRA  
0,018  
ethyl acetate

**Workers (professional)**

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

SU22  
PROC11  
dermal, long-term - systemic  
63 mg/kg/d  
ECETOC TRA  
0,034  
ethyl acetate

**Workers (professional)**

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

SU22  
PROC11  
inhalation, long-term - local  
734 mg/m<sup>3</sup>  
ECETOC TRA  
0,018  
ethyl acetate

**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

SU22  
PROC11

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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
<b>Workers (professional)</b>	
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
SU	SU22
PROC	PROC10
Assessment method	Long-term
	inhalative
Exposure assessment	185,25 mg/m <sup>3</sup>
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/m <sup>3</sup>
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/m <sup>3</sup>
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**

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

Trade name: Hesse PU Metallic Effect lacquer coarse, silk mat PEX DB 46004-FT

Version: 24 / ZA

Revision: 25.02.2025

Replaces Version: 23 / ZA

Print date: 01.12.25

### 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

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

#### Disposal recommendations for packaging

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

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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**

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.

**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	PROC11
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

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**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic
	Outdoor use
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	Long-term
	inhalative
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 (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,6
Lead substance	acetone

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	62 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,15
Lead substance	acetone

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,4
Lead substance	acetone

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
Exposure assessment	62 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	acetone

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**Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	acetone

**Workers (professional)**

SU	SU22
PROC	PROC13
Assessment method	dermal, long-term - systemic
Exposure assessment	62 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,07
Lead substance	acetone

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - systemic
Exposure assessment	63 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,022
Lead substance	ethyl acetate

**Workers (professional)**

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local
Exposure assessment	734 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,018
Lead substance	ethyl acetate

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - systemic
Exposure assessment	63 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,034
Lead substance	ethyl acetate

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local
Exposure assessment	734 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,018
Lead substance	ethyl acetate

**Workers (professional)**

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

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

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

SU22  
PROC10  
Long-term  
inhalative  
185,25 mg/m<sup>3</sup>  
ECETOC TRA  
0,5976  
2-methylpropan-1-ol

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

SU22  
PROC11  
Long-term  
inhalative  
256,1 mg/m<sup>3</sup>  
ECETOC TRA  
0,8261  
2-methylpropan-1-ol

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

SU22  
PROC13  
Long-term  
inhalative  
185,25 mg/m<sup>3</sup>  
ECETOC TRA  
0,5976  
2-methylpropan-1-ol

**Information on estimated exposure and downstream-user guidance**



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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.