

Trade name: Hesse PU Multicoat lacquer DE 414

Version: 28 / GB

Revision: 10.12.2020

Replaces Version: 27 / GB

Print date: 14.12.20

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Hesse PU Multicoat lacquer DE 414

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

Use of the substance/preparation

Surface treatment of wood and other materials

Identified Uses

	REACHSET 1000
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROC7	Industrial spraying
	REACHSET 2001
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROC11	Non industrial spraying

1.3. Details of the supplier of the safety data sheet

Manufacturer

Hesse GmbH & Co. KG
Warendorfer Strasse 21
59075 Hamm
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

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
Eye Irrit. 2	H319

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

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Hazard pictograms**Signal word**

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
 H336 May cause drowsiness or dizziness.
 H319 Causes serious eye irritation.

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 acetone; isobutyl acetate; n-butyl acetate
 EUH208 Contains octabenzene, methyl methacrylate, 12-hydroxy-N-[6-(12-hydroxyoctadecanamido)hexyl]octadecanamide, May produce an allergic reaction.

Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB) (if not listed in Section 3).

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	

isobutyl acetate

CAS No. 110-19-0
 EINECS no. 203-745-1

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Registration no.	01-2119488971-22			
Concentration	>= 25	<	50	%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2		H225	
	STOT SE 3		H336	Nervous system
			EUH066	

xylene

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

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	

ethylbenzene

CAS No.	100-41-4			
EINECS no.	202-849-4			
Registration no.	01-2119489370-35			
Concentration	>= 1	<	9	%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2		H225	
	Acute Tox. 4		H332	Route of exposure: Inhalation exposure
				Ear
	STOT RE 2		H373	
	Asp. Tox. 1		H304	

diacetone alcohol

CAS No.	123-42-2			
EINECS no.	204-626-7			
Registration no.	01-2119473975-21			
Concentration	>= 1	<	3	%
Classification (Regulation (EC) No. 1272/2008)				

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STOT SE 3	H335	Respiratory tract
Eye Irrit. 2	H319	
Repr. 2	H361d	

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

Eye Irrit. 2	H319	10 %
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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

methyl methacrylate

CAS No. 80-62-6

EINECS no. 201-297-1

Registration no. 01-2119452498-28

Concentration $\geq 0,1$ < 1 %

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

Flam. Liq. 2	H225	
STOT SE 3	H335	Respiratory tract
Skin Irrit. 2	H315	
Skin Sens. 1	H317	

octabenzene

CAS No. 1843-05-6

EINECS no. 217-421-2

Registration no. 01-2119557833-30

Concentration $\geq 0,1$ < 1 %

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

Skin Sens. 1	H317
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cellulose nitrate ≤ 12.6 % N

CAS No. 9004-70-0

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

Expl. 1.1	H201
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Note

For explanation of abbreviations see section 16.

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) (if not listed in Section 3).

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.

5. Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

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

Non suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

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

Other information

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

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.

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.

8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

acetone

List

Directive 2017/164 EG

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Value	1210	mg/m ³	500	ppm(V)
Status: 12/2009				
acetone				
List	EH40			
Value	1210	mg/m ³	500	ppm(V)
Short term exposure limit	3620	mg/m ³	1500	ppm(V)
Status: 01/2020				
isobutyl acetate				
List	EH40			
Value	724	mg/m ³	150	ppm(V)
Short term exposure limit	903	mg/m ³	187	ppm(V)
Status: 01/2020				
isobutyl acetate				
List	Directive 2017/164 EG			
Value	241	mg/m ³	50	ppm(V)
Short term exposure limit	723	mg/m ³	150	ppm(V)
Status: 10/2019				
n-butyl acetate				
List	EH40			
Value	724	mg/m ³	150	ppm(V)
Short term exposure limit	966	mg/m ³	200	ppm(V)
Status: 01/2020				
n-butyl acetate				
List	Directive 2017/164 EG			
Value	241	mg/m ³	50	ppm(V)
Short term exposure limit	723	mg/m ³	150	ppm(V)
Status: 10/2019				
xylene				
List	Directive 2017/164 EG			
Value	221	mg/m ³	50	ppm(V)
Short term exposure limit	442	mg/m ³	100	ppm(V)
Skin resorption / sensibilisation: H; Status: 12/2009				
xylene				
List	EH40			
Value	220	mg/m ³	50	ppm(V)
Short term exposure limit	441	mg/m ³	100	ppm(V)
Skin resorption / sensibilisation: Sk; Status: 01/2020				
diacetone alcohol				
List	EH40			
Value	241	mg/m ³	50	ppm(V)
Short term exposure limit	362	mg/m ³	75	ppm(V)
Status: 01/2020				
ethylbenzene				
List	Directive 2017/164 EG			
Value	442	mg/m ³	100	ppm(V)
Short term exposure limit	884	mg/m ³	200	ppm(V)
Status: 12/2009				
ethylbenzene				
List	EH40			
Value	441	mg/m ³	100	ppm(V)
Short term exposure limit	552	mg/m ³	125	ppm(V)

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Skin resorption / sensibilisation: Sk; Status: 01/2020

Other information

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Derived No/Minimal Effect Levels (DNEL/DMEL)**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 ³

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

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	5	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	35,7	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	

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

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

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

n-butyl acetate

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

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

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

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

Type of value	Derived No Effect Level (DNEL)	
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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 ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	6	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	35,7	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m ³
diacetone alcohol		
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	32,6	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	467	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	5,8	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,67	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	167	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 ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	186	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	2420	mg/m ³

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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	1210	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	62	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	62	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	200	mg/m ³
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	108	mg/kg/d
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	180	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	14,8	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	

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Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	174	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	174	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	77	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	289	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	289	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,6	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

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ethylbenzene

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/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 Systemic effects
 Concentration 77 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 289 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 77 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Workers (professional)
 Duration of exposure Long-term
 Route of exposure Dermal exposure
 Mode of action Systemic effects
 Concentration 18 mg/kg/d

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Short-term
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 174 mg/m³

Type of value Derived No Effect Level (DNEL)
 Reference group Consumer
 Duration of exposure Short-term
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 174 mg/m³

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

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Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	14,8	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	108	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	1,6	mg/kg/d
octabenzone		
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	6,6	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	1,87	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	0,9	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	0,9	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	1,6	mg/m ³

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methyl methacrylate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	210	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	210	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	1,5	mg/cm ²
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	13,67	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	1,5	mg/cm ²
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	105	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	74,3	mg/m ³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

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Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	1,5	mg/cm ²
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	8,2	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	Local effects	
Concentration	1,5	mg/cm ²

Predicted No Effect Concentration (PNEC)

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
---------------	------

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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
diacetone alcohol			
Type of value	PNEC		
Type	Freshwater		
Concentration	2		mg/l
Type of value	PNEC		
Type	Saltwater		
Concentration	0,2		mg/l
Type of value	PNEC		
Conditions	sporadic release		
Concentration	1		mg/l
Type of value	PNEC		
Type	Sewage treatment plant (STP)		
Concentration	10		mg/l
Type of value	PNEC		
Type	Fresh water sediment		
Concentration	7,4		mg/kg/d
Type of value	PNEC		
Type	saltwater sediment		
Concentration	0,74		mg/kg/d



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Type of value	PNEC	
Type	Soil	
Concentration	0,31	mg/kg/d

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

xylene

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

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Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	6,58	mg/l
ethylbenzene		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,327	mg/l
Type of value	PNEC	
Type	Fresh water 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
octabenzene		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,052	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,0052	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,52	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	1	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	331	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	33,2	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	66,1	mg/kg

methyl methacrylate

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Type of value	PNEC		
Type	Freshwater		
Concentration	0,94		mg/l
Type of value	PNEC		
Type	marine water		
Concentration	0,094		mg/l
Type of value	PNEC		
Type	Soil		
Concentration	1,47		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.

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.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	colourless

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Odour	solvent-like		
Odour threshold			
Remarks	not determined		
Melting point			
Remarks	not determined		
Freezing point			
Remarks	not determined		
Initial boiling point and boiling range			
Remarks	not determined		
Flash point			
Value	4		°C
Evaporation rate			
Remarks	not determined		
Flammability (solid, gas)	not determined		
Upper/lower flammability or explosive limits			
Remarks	not determined		
Vapour pressure			
Remarks	not determined		
Vapour density			
Remarks	not determined		
Density			
Value	appr. 0,953		kg/l
Temperature	20	°C	
Solubility in water			
Remarks	not determined		
Solubility(ies)			
Remarks	not determined		
Partition coefficient: n-octanol/water			
Remarks	not determined		
Ignition temperature			
Remarks	not determined		
Decomposition temperature			
Remarks	not determined		
Viscosity			
Remarks	not determined		
Efflux time			
Value	29	to	35 s
Temperature	20	°C	
Method	DIN 53211 4 mm		
Explosive properties			
evaluation	not determined		

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Oxidising properties

Remarks not determined

9.2. Other information**Non-volatile content**

Value	27,2	%
Method	calculated value	

Other information

This information is not available.

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 productsCarbon monoxide and carbon dioxide, nitrous oxides (NO_x), dense black smoke, No decomposition if used as prescribed.**11. Toxicological information****11.1. Information on toxicological effects****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.	

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Acute inhalative toxicity (Components)**ethylbenzene**

ATE	1,5		mg/l
Duration of exposure	4	h	
Administration/Form	Dust/Mist		
Method	conversion value		
Remarks	Mist		

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)

methyl methacrylate

evaluation	Irritating to skin.
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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)**acetone**

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

xylene

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

diacetone alcohol

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)**octabenzene**

Species	guinea pig
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evaluation May cause sensitization by skin contact.
Method OECD Test Guideline 406

methyl methacrylate

Species mouse
evaluation May cause sensitization by skin contact.

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

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.

Reproduction toxicity (Components)**diacetone alcohol**

Species rat
evaluation Reproductive toxicity, Category 2
Method OECD 422
Remarks Suspected of damaging the unborn child.
Source 2 (reliable with restrictions)

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)**acetone****Specific target organ toxicity - repeated 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).

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

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

diacetone alcohol**Specific target organ toxicity - single exposure**

Remarks
 Organs: Respiratory tract
 May cause respiratory irritation.

methyl methacrylate**Specific target organ toxicity - single exposure**

Remarks
 Organs: Respiratory tract
 May cause respiratory irritation.

Aspiration hazard

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

Other information

No toxicological data are available.

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)**methyl methacrylate**

Species	Pimephales promelas (fathead minnow)		
LC50	130		mg/l
Duration of exposure	96	h	

Daphnia toxicity (Components)**octabenzone**

Species	Daphnia magna (Water flea)		
EC50	52		mg/l
Duration of exposure	24	h	

12.2. Persistence and degradability**General information**

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

Biodegradability (Components)**octabenzone**

Value	5	to	6	%
Duration of test evaluation	28	d		

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

Remarks
 not determined

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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.

12.6. 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.

13. Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

EWC waste code 080111 - waste paint and varnish containing organic solvents or other dangerous substances

EWC waste code 200127 - paint, inks, adhesives and resins containing dangerous substances

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

modified product

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

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

Dried residues

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

Disposal recommendations for packaging

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

Completely emptied packagings can be given for recycling.

14. Transport information




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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	PAINT
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Special provision	640D		
Limited Quantity	5 l		
Transport category	2		

15. Regulatory information

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

VOC

VOC (EU) 72,8 % 694 g/l

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

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

16. Other information

Hazard statements listed in Chapter 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H201	Explosive; mass explosion hazard.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

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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.
H413	May cause long lasting harmful effects to aquatic life.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Expl. 1.1	Explosive, Division 1.1
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
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

Flam. Liq - Flammable liquids
 RID - Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IMDG - International Maritime Code for Dangerous Goods
 IATA - International Air Transport Association
 IATA-DGR - Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO-TI - Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS - Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS - European Inventory of Existing Commercial Chemical Substances
 CAS - Chemical Abstracts Service (division of the American Chemical Society)
 GefStoffV - Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 LOAEL - Lowest Observed Adverse Effect Level
 LOEL - Lowest Observed Effect Level
 NOAEL - No Observed Adverse Effect Level
 NOEC - No Observed Effect Concentration
 NOEL - No Observed Effect Level
 OECD - Organisation for Economic Cooperation and Development
 VOC - Volatile Organic Compounds

Changes since the last version are highlighted in the margin (***). This version replaces all previous versions.

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

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)

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Short title of the exposure scenario

ES001 - Industrial applications: industrial spraying (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

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

Contributing exposure scenario controlling environmental exposure**Use**

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

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 300

Other relevant operational conditions

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

Waste water

Do not discharge into the drains/surface waters/groundwater. Spray cabin waters are to be conducted after mechanical pretreatment into a wastewater treatment facility.

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

Disposal recommendations for the product

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

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

modified product

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

Dried residues

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

Disposal recommendations for packaging

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

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure**Use**

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

PROC7 Industrial spraying

Physical form

liquid

Maximum amount used per time or activity

Duration of exposure <= 8 h/d

Frequency of exposure <= 220 d/a

Other relevant operational conditions

Use: Room temperature

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

Read attached instructions before use.

Product substance and product safety related measures

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

Respiratory protection

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

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

Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

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

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

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

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

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

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

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

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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 ³
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 ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	242 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	isobutyl acetate

Workers (industrial)

PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
	Indoor use
Exposure assessment	60,5 mg/m ³
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 ³
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
	Outdoor use
Exposure assessment	242 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

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Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	242 mg/m ³
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 ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalative
	Long-term
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	diacetone alcohol

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	dermal
	Long-term
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,9
Lead substance	diacetone alcohol

Workers (industrial)

SU	SU22
PROC	PROC10
Assessment method	inhalative
	Long-term
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,75
Lead substance	diacetone alcohol

Workers (industrial)

SU	SU3
PROC	PROC10
Assessment method	dermal
	Long-term
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	diacetone alcohol

Workers (industrial)

SU	SU3
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PROC
Assessment method

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

PROC13
inhalative
Long-term
ECETOC TRA
0,5
diacetone alcohol

Workers (industrial)

SU
PROC
Assessment method

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

SU3
PROC13
dermal
Long-term
ECETOC TRA
0,5
diacetone alcohol

Workers (industrial)

SU
PROC
Assessment method

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

SU3
PROC7
inhalation, long-term - systemic
Indoor use
200 mg/m³
ECETOC TRA
0,05
acetone

Workers (industrial)

SU
PROC
Assessment method

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

SU3
PROC7
dermal, long-term - systemic
Indoor use
62 mg/kg/d
ECETOC TRA
0,01
acetone

Workers (industrial)

SU
PROC
Assessment method

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

SU3
PROC10
inhalation, long-term - systemic
Indoor use
200 mg/m³
ECETOC TRA
0,5
acetone

Workers (industrial)

SU
PROC
Assessment method

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

SU3
PROC10
dermal, long-term - systemic
Indoor use
62 mg/kg/d
ECETOC TRA
0,15
acetone

Workers (industrial)

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SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	200 mg/m ³
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

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m ³
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 ³
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 ³
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.

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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

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

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalative Long-term
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5
Lead substance	diacetone alcohol

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalative Long-term

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Exposure assessment (method) ECETOC TRA
 Risk characterisation ratio (RCR) 0,5
 Lead substance diacetone alcohol

Workers (professional)

SU SU22
 PROC PROC10
 Assessment method inhalative
 Long-term

Exposure assessment (method) ECETOC TRA
 Risk characterisation ratio (RCR) 0,75
 Lead substance diacetone alcohol

Workers (professional)

SU SU22
 PROC PROC10
 Assessment method dermal
 Long-term

Exposure assessment (method) ECETOC TRA
 Risk characterisation ratio (RCR) 0,5
 Lead substance diacetone alcohol

Workers (professional)

SU SU22
 PROC PROC13
 Assessment method dermal
 Long-term

Exposure assessment (method) ECETOC TRA
 Risk characterisation ratio (RCR) 0,5
 Lead substance diacetone alcohol

Workers (professional)

SU SU22
 PROC PROC11
 Assessment method dermal
 Long-term

Exposure assessment (method) ECETOC TRA
 Risk characterisation ratio (RCR) 0,75
 Lead substance diacetone alcohol

Workers (professional)

SU SU22
 PROC PROC10
 Assessment method inhalation, long-term - systemic
 Exposure assessment 200 mg/m³

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

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Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m ³
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

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m ³
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	inhalative Indoor use
Exposure assessment	0,05 mg/m ³
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
Exposure assessment	0,1 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

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Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m ³
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.