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

1.1. Product identifier

Hesse CREATIVE-METALLIC, matt PEX DB 46552-FT

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

Use of the substance/preparation

Surface treatment of wood and other materials

Identified Uses

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

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

1.3. Details of the supplier of the safety data sheet

Manufacturer

Hesse GmbH & Co. KG
Warendorfer Strasse 21
59075 Hamm (Germany)

Telephone no.	+49 (0) 2381 963-00
Fax no.	+49 (0) 2381 963-849
E-mail address	ps@hesse-lignal.de

1.4. Emergency telephone number

Germany: +49 (0) 2381 788-612
Testphrase

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

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

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

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

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

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.

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

contains 2-methoxy-1-methylethyl acetate; acetone; ethyl acetate; isobutyl acetate

Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

Further supplemental information

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

SECTION 3: Composition/information on ingredients

Hazardous ingredients

n-butyl acetate

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

Hydrocarbons, C9, aromatics

CAS No.	128601-23-0				
EINECS no.	918-668-5				
Registration no.	01-2119455851-35				
Concentration	>=	3	<	10	%
Classification (Regulation (EC) No. 1272/2008)					
	Flam. Liq. 3		H226		

Asp. Tox. 1	H304		
Aquatic Chronic 2	H411		
STOT SE 3	H335		Respiratory tract
STOT SE 3	H336		Nervous system
	EUH066		

2-methoxy-1-methylethyl acetate

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

ethyl acetate

CAS No.	141-78-6			
EINECS no.	205-500-4			
Registration no.	01-2119475103-46			
Concentration	>= 1	<	5	%
Classification (Regulation (EC) No. 1272/2008)				
Flam. Liq. 2	H225			
Eye Irrit. 2	H319			
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	>= 1	<	10	%
Classification (Regulation (EC) No. 1272/2008)				
Flam. Liq. 2	H225			
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	<	4	%
Classification (Regulation (EC) No. 1272/2008)				
Flam. Liq. 2	H225			
Eye Irrit. 2	H319			
STOT SE 3	H336			Nervous system
	EUH066			

copper metal powder

CAS No.	7440-50-8			
EINECS no.	231-159-6			
Registration no.	01-2119480154-42			
Concentration	>= 1	<	10	%

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

Aquatic Acute 1	H400
Aquatic Chronic 3	H412

toluene

CAS No.	108-88-3				
EINECS no.	203-625-9				
Registration no.	01-2119471310-51				
Concentration	>=	0,1	<	1	%

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

zinc powder — zinc dust (pyrophoric)

CAS No.	7440-66-6				
EINECS no.	231-175-3				
Registration no.	01-2119467174-37				
Concentration	>=	0,1	<	0,3	%

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

Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Amines, C16-18-alkyldimethyl

CAS No.	68390-97-6				
EINECS no.	269-915-2				
Registration no.	01-2119970967-16				
Concentration	>=	0,001	<	0,1	%

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

Acute Tox. 4	H302
Skin Corr. 1B	H314
Aquatic Acute 1	H400
Aquatic Chronic 1	H410
Eye Dam. 1	H318

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

Aquatic Acute 1	H400	M = 100

Amines, C12-16-alkyldimethyl

CAS No.	68439-70-3				
EINECS no.	270-414-6				
Registration no.	01-2119970968-14				
Concentration	>=	0,001	<	0,1	%

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

Acute Tox. 4	H302
Skin Corr. 1B	H314
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

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

Aquatic Acute 1	H400	M = 100

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

ethanol

CAS No.	64-17-5				
EINECS no.	200-578-6				
Registration no.	01-2119457610-43				
Concentration	>=	1	<	10	%

Advice: [3]

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

Flam. Liq. 2	H225

Note

[3] Substance with occupational exposure limits

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

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

After inhalation

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

After skin contact

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

After eye contact

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

After ingestion

Do not induce vomiting. Take medical treatment.

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

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

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

Hints for the physician / treatment

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Non suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment for fire-fighting

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

Other information

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep container tightly closed and dry in a cool, well-ventilated place. Use only with adequate ventilation/personal protection. Ensure adequate ventilation. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour

concentration below the occupational limit values. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Do no eat, drink or smoke when using this product. Use personal protective clothing. For personal protection see Section 8.

Advice on protection against fire and explosion

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

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

Hints on storage assembly

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

Storage classes

Storage class according to TRGS 510	3	Flammable liquid

Further information on storage conditions

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

7.3. Specific end use(s)

See exposure scenario, if available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

2-methoxy-1-methylethyl acetate

List	GV (DK)			
Value	275	mg/m³	50	ppm(V)

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

2-methoxy-1-methylethyl acetate

List	Directive 2017/164 EG			
Value	275	mg/m³	50	ppm(V)
Short term exposure limit	550	mg/m³	100	ppm(V)

Status: 12/2009

acetone

List	GV (DK)			
Value	600	mg/m³	250	ppm(V)

Status: 11/2021

acetone

List	Directive 2017/164 EG			
Value	1210	mg/m³	500	ppm(V)

Status: 12/2009

ethyl acetate

List	Directive 2017/164 EG			
Value	734	mg/m³	200	ppm(V)
Short term exposure limit	1468	mg/m³	400	ppm(V)
Status: 02/2017				

ethyl acetate

List	GV (DK)			
Value	540	mg/m³	150	ppm(V)
Status: 11/2021				

isobutyl acetate

List	GV (DK)			
Value	241	mg/m³	50	ppm(V)
Status: 11/2021				

isobutyl acetate

List	Directive 2017/164 EG			
Value	241	mg/m³	50	ppm(V)
Short term exposure limit	723	mg/m³	150	ppm(V)
Status: 10/2019				

n-butyl acetate

List	GV (DK)			
Value	241	mg/m³	50	ppm(V)
Status: 11/2021				

n-butyl acetate

List	Directive 2017/164 EG			
Value	241	mg/m³	50	ppm(V)
Short term exposure limit	723	mg/m³	150	ppm(V)
Status: 10/2019				

ethanol

List	GV (DK)			
Value	1900	mg/m³	1000	ppm(V)
Status: 11/2021				

Other information

-

Derived No/Minimal Effect Levels (DNEL/DMEL)

2-methoxy-1-methylethyl acetate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	275	mg/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	153,5	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,67	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	33	mg/m³

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

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/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	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/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1210	mg/m³

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

Concentration	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/m³

ethyl 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	63	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	734	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	734	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	1468	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1468	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	Systemic effects	
Concentration	734	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	734	mg/m³

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

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	4,5	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	Local effects	
Concentration	367	mg/m³

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/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m³
Type of value	Derived No Effect Level (DNEL)	
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/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	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	Systemic effects	
Concentration	300	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	300	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	600	mg/m³
Type of value	Derived No Effect Level (DNEL)	

Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	600	mg/m³

n-butyl acetate

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

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	600	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	600	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	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/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	300	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	35,7	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m³
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

ethanol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1900	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	343	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	960	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Acute effects	
Concentration	960	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	206	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	114	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	87	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/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	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/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	192	mg/m³

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

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/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	56,5	mg/m³

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

Hydrocarbons, C9, aromatics

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

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

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

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

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

zinc powder — zinc dust (pyrophoric)

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	5	mg/m³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	83	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	0,83	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	2,5	mg/m³

Amines, C16-18-alkyldimethyl

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	1	mg/m³

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	mg/m³	

Amines, C12-16-alkyldimethyl

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	1	mg/m³

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

Mode of action	Local effects	
Concentration	1	mg/m³

Predicted No Effect Concentration (PNEC)

2-methoxy-1-methylethyl acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,635	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,0635	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	6,35	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,29	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,329	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,29	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l

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
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)	
Concentration	35,6	mg/l
Type of value	PNEC	
Type	Water	
Conditions	sporadic release	
Concentration	0,36	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,981	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,0981	mg/l
Type of value	PNEC	
Type	Soil	
Concentration	0,0903	mg/kg

ethanol

Type of value	PNEC	
Type	Freshwater	
Concentration	0,96	mg/l
Type of value	PNEC	
Type	marine water	

Concentration	0,79	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	2,75	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	580	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,6	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	2,9	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,63	mg/kg

toluene

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

zinc powder — zinc dust (pyrophoric)

Type of value	PNEC	
Type	Freshwater	
Concentration	0,0206	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	117,8	mg/kg
Type of value	PNEC	
Type	marine water	
Concentration	0,0061	mg/l
Type of value	PNEC	

Type	Soil	
Concentration	35,6	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	56,5	mg/kg

Amines, C16-18-alkyldimethyl

Type of value	PNEC	
Type	Freshwater	
Concentration	0,26	µg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,003	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	130	µg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	1,25	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,125	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	1	mg/kg

Amines, C12-16-alkyldimethyl

Type of value	PNEC	
Type	Freshwater	
Concentration	0,26	µg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,03	µg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	130	µg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	1,25	mg/kg
Type of value	PNEC	
Type	Marine sediment	
Concentration	0,125	mg/kg

Type of value	PNEC		
Type	Soil		
Concentration	1		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	>=	0,7	mm
Breakthrough time	>=	30	min

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
The breakthrough time must be greater than the end use time of the product.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	coloured
Odour	solvent-like

Melting point

Remarks not determined

Freezing point

Remarks not determined

Boiling point or initial boiling point and boiling range

Value	55,8	to	217	°C

Flammability

not determined

Upper and lower explosive limits

Remarks	not determined				

Flash point

Value	<	21			°C

Ignition temperature

Remarks	not determined				

Decomposition temperature

Remarks	not determined				

Viscosity

Remarks	not determined				

Solubility(ies)

Remarks	not determined				

Partition coefficient n-octanol/water (log value)

Remarks	not determined				

Vapour pressure

Remarks	not determined				

Density and/or relative density

Value	appr.	1,05			kg/l
Temperature		20	°C		

Relative vapour density

Remarks	not determined				

Particle characteristics

Remarks	not determined				

9.2. Other information

Odour threshold

Remarks	not determined				

Evaporation rate

Remarks	not determined				

Solubility in water

Remarks	not determined				

Efflux time

Value		36	to	44	s
Temperature		20	°C		
Method	DIN 53211 4 mm				

Explosive properties

evaluation	not determined				

Oxidising properties

Remarks	not determined				

Non-volatile content

Value	appr.	26,8			%

Other information

This information is not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

To avoid thermal decomposition, do not overheat.

10.4. Conditions to avoid

Isolate from sources of heat, sparks and open flame.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

Acute oral toxicity

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

Acute oral toxicity (Components)

zinc powder — zinc dust (pyrophoric)

Species	rat		
LD50	>	2000	mg/kg
Method	Limited Test		

Amines, C16-18-alkyldimethyl

Species	rat		
LD50		1450	mg/kg
Method	OECD 401		

Amines, C12-16-alkyldimethyl

Species	rat		
LD50		1450	mg/kg

Acute dermal toxicity

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

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)

aluminium powder (stabilised)

Species	rat			
LC50	>	5		mg/l
Duration of exposure		4	h	
Remarks	Mist			

zinc powder — zinc dust (pyrophoric)

Species	rat			
LC50	>	5,41		mg/l
Duration of exposure		4	h	
Method	Limited Test			
Remarks	Mist			

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)

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)		

zinc powder — zinc dust (pyrophoric)

evaluation	No skin irritation

Amines, C16-18-alkyldimethyl

Species	rabbit
evaluation	Causes burns.

Amines, C12-16-alkyldimethyl

Species	rabbit
evaluation	Causes burns.

Serious eye damage/irritation

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

Serious eye damage/irritation (Components)

acetone

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

ethyl acetate

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

zinc powder — zinc dust (pyrophoric)

evaluation	No eye irritation

Amines, C16-18-alkyldimethyl

Amines, C12-16-alkyldimethyl

Sensitization

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

Sensitization (Components)

zinc powder — zinc dust (pyrophoric)

evaluation	No sensitizing effects known.

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)

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-methoxy-1-methylethyl acetate

Specific target organ toxicity - repeated exposure

evaluation	May cause drowsiness or dizziness. Organs: Nervous system

acetone

Specific target organ toxicity - repeated exposure

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

ethyl acetate

Specific target organ toxicity - single exposure

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

isobutyl acetate

Specific target organ toxicity - repeated exposure

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

n-butyl acetate

Specific target organ toxicity - repeated exposure

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

toluene

Specific target organ toxicity - single exposure

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

toluene

Specific target organ toxicity - repeated exposure

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

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

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

Hydrocarbons, C9, aromatics

Specific target organ toxicity - single exposure

Remarks	Possible narcotic effects (drowsiness, dizziness).

Aspiration hazard

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

11.2 Information on other hazards

Other information

No toxicological data are available.

SECTION 12: Ecological information

12.1. Toxicity

General information

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

Fish toxicity (Components)

Hydrocarbons, C9, aromatics

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

zinc powder — zinc dust (pyrophoric)

Species	Cottus bairdii		
LC50	0,439		mg/l
Duration of exposure	96	h	

zinc powder — zinc dust (pyrophoric)

Species	Jordanella floridae		
NOEC	0,075		mg/l
Duration of exposure	30	d	

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		

zinc powder — zinc dust (pyrophoric)

Species	Daphnia magna (Water flea)			
EC50	0,416			mg/l
Duration of exposure	48	h		

zinc powder — zinc dust (pyrophoric)

Species	Daphnia magna (Water flea)			
NOEC	0,025			mg/l
Duration of exposure	7	d		

Amines, C16-18-alkyldimethyl

Species	Daphnia magna (Water flea)			
NOEC	0,036			mg/l
Duration of exposure	21	d		

Amines, C12-16-alkyldimethyl

Species	Daphnia magna (Water flea)			
NOEC	0,036			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		

Amines, C16-18-alkyldimethyl

Species	Desmodesmus subspicatus			
EC50	0,0099			mg/l
Duration of exposure	72	h		
Method	OECD 201			

Amines, C12-16-alkyldimethyl

Species	Desmodesmus subspicatus			
EC50	0,0099			mg/l
Duration of exposure	72	h		
Method	OECD 201			

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.

Amines, C16-18-alkyldimethyl

Value	>	75		%
Duration of test		28	d	
evaluation	Readily biodegradable.			

Amines, C12-16-alkyldimethyl

Value	>	75		%
Duration of test		28	d	

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.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

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

12.7. Other adverse effects

General information

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

General information / ecology

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

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

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

modified product

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

Dried residues

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

Disposal recommendations for packaging

EWC waste code	150110 - packaging containing residues of or contaminated

by dangerous substances

Completely emptied packagings can be given for recycling.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1263	1263	1263
14.2. UN proper shipping name	PAINT	PAINT	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		

SECTION 15: Regulatory information

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

VOC

VOC (EU) 73 % 700 g/l

MAL-Code

MAL-Code 3-1

MAL 1.050,06 m³/l

15.2. Chemical safety assessment

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

SECTION 16: Other information

Hazard statements listed in Chapter 3

EUH066 Repeated exposure may cause skin dryness or cracking.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
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 Corr. 1B	Skin corrosion, Category 1B
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

Abbreviations

Flam. Liq - Flammable liquids
RID - Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning theInternational Transport of Dangerous Goods by Rail)
IMDG - International Maritime Code for Dangerous Goods
IATA - International Air Transport Association
IATA-DGR - Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO-TI - Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS - Globally Harmonized System of Classification and Labelling of Chemicals
EINECS - European Inventory of Existing Commercial Chemical Substances
CAS - Chemical Abstracts Service (division of the American Chemical Society)
GefStoffV - Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
LOAEL - Lowest Observed Adverse Effect Level
LOEL - Lowest Observed Effect Level
NOAEL - No Observed Adverse Effect Level
NOEC - No Observed Effect Concentration
NOEL - No Observed Effect Level
OECD - Organisation for Econpmic Cooperation and Development
VOC - Volatile Organic Compounds
Changes since the last version are highlighted in the margin (***). This version replaces all previous versions.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.
The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES001 - Industrial applications: industrial spraying (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

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

Contributing exposure scenario controlling environmental exposure

Use

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

Physical form

liquid

Maximum amount used per time or activity

Emission days per site: <= 300

Other relevant operational conditions

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

Waste water

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

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

Disposal recommendations for the product

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

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

modified product

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

Dried residues

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

Disposal recommendations for packaging

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

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure

Use

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

Physical form liquid

Maximum amount used per time or activity

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

Other relevant operational conditions

Use: Room temperature
Drying and through-curing takes place at ambient temperature or at higher temperatures.
Read attached instructions before use.

Product substance and product safety related measures

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

Respiratory protection

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

Hand protection

Protective gloves complying with EN 374.
Glove material
Multilayer gloves made from

Appropriate Material		Fluorinated rubber / butyl-rubber
Material thickness	>=	0,7
Breakthrough time	>=	30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and

replacement must be followed.
The breakthrough time must be greater than the end use time of the product.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

Exposure estimation and reference to its source

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	27,54 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - local and systemic
Exposure assessment	2,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - local and systemic
Exposure assessment	27,43 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,18
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m³
Exposure assessment (method)	ECETOC TRA

Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC13
Assessment method	dermal, long-term - local and systemic
Exposure assessment	13,71 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,09
Lead substance	2-methoxy-1-methylethyl acetate

Workers (industrial)

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - systemic Indoor use
Exposure assessment	200 mg/m³
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/m³
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/m³
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	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/m³
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/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,075
Lead substance	ethyl acetate

Workers (industrial)

PROC	PROC7
Assessment method	inhalation, long-term - local and systemic
	Indoor use

Exposure assessment	60,5 mg/m³
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/m³
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/m³
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/m³
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/m³
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/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic Indoor use
Exposure assessment	242 mg/m³
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/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

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

Annex to the extended Safety Data Sheet (eSDS)

Short title of the exposure scenario

ES003 - Professional uses: Non industrial spraying (inside)

Use of the substance/preparation

Surface treatment of wood and other materials

Use

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

Contributing exposure scenario controlling environmental exposure

Use

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

Physical form liquid

Maximum amount used per time or activity

Emission days per site: <= 250

Other relevant operational conditions

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

Waste water

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

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

Disposal recommendations for the product

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

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

modified product

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

Dried residues

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

Disposal recommendations for packaging

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

Completely emptied packagings can be given for recycling.

Contributing exposure scenario controlling worker exposure (professional)

Short title of the exposure scenario

Substance number:CES006

Use

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PROC11	Non industrial spraying

Physical form

liquid

Maximum amount used per time or activity

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

Other relevant operational conditions

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

Product substance and product safety related measures

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

Respiratory protection

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

Hand protection

Protective gloves complying with EN 374.
Glove material
Multilayer gloves made from

Appropriate Material		Fluorinated rubber / butyl-rubber
Material thickness	>=	0,7
Breakthrough time	>=	30

This recommendation is valid only for the product named in this safety data sheet supplied by us, and only for the indicated intended use purposes.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
The breakthrough time must be greater than the end use time of the product.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

Exposure estimation and reference to its source

Workers (professional)

SU	SU22
PROC	PROC13
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	55,08 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate

Workers (professional)

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

Workers (professional)

SU	SU22
PROC	PROC10
Assessment method	inhalation, long-term - local and systemic
Exposure assessment	137,71 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,5

Lead substance	2-methoxy-1-methylethyl acetate
Workers (professional)	
SU	SU22
PROC	PROC10
Assessment method	dermal, long-term - local and systemic
Exposure assessment	27,43 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,18
Lead substance	2-methoxy-1-methylethyl acetate
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic Indoor use
Exposure assessment	27,54 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,1
Lead substance	2-methoxy-1-methylethyl acetate
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - local and systemic Indoor use
Exposure assessment	2,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,01
Lead substance	2-methoxy-1-methylethyl acetate
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic Outdoor use
Exposure assessment	55,08 mg/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,2
Lead substance	2-methoxy-1-methylethyl acetate
Workers (professional)	
SU	SU22
PROC	PROC11
Assessment method	dermal, long-term - local and systemic Outdoor use
Exposure assessment	107,14 mg/kg/d
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,7
Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	dermal, long-term - systemic Indoor use
Exposure assessment	6 mg/kg/d
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,11

Lead substance	2-methoxy-1-methylethyl acetate
SU	SU21
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	6,83 mg/m³
Exposure assessment (method)	ConsExpo v4.1
Risk characterisation ratio (RCR)	0,6
Lead substance	2-methoxy-1-methylethyl acetate

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

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - systemic
Exposure assessment	200 mg/m³
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/m³
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/m³
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/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,018
Lead substance	ethyl acetate

Workers (professional)

SU	SU22
PROC	PROC11
Assessment method	inhalation, long-term - local and systemic Indoor use
Exposure assessment	242 mg/m³
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/m³
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/m³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Information on estimated exposure and downstream-user guidance

Guidance for Downstream Users

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