

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

### 1.1. Product identifier

Hesse UNA-PUR, high gloss DE 559

### 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

## 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
Eye Irrit. 2	H319
STOT SE 3	H336

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

### Hazard pictograms



### Signal word

Danger

### Hazard statements

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

### 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; n-butyl acetate

EUH208 Contains methyl methacrylate, 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	>= 50		%
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3	H226	
	STOT SE 3	H336	Nervous system
		EUH066	

#### xylene

CAS No. 1330-20-7

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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
	Acute Tox. 4	H312		Route of exposure: Dermal exposure
	Skin Irrit. 2	H315		
	Asp. Tox. 1	H304		
	STOT SE 3	H335		Respiratory tract; Route of exposure: inhalative
	Eye Irrit. 2	H319		

**4-methylpentan-2-one**

CAS No.	108-10-1			
EINECS no.	203-550-1			
Registration no.	01-2119473980-30			
Concentration	>= 1	< 10		%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2	H225		
	Acute Tox. 4	H332		Route of exposure: Inhalation exposure
	Eye Irrit. 2	H319		
	STOT SE 3	H335		Respiratory tract
		EUH066		

**acetone**

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

**ethylbenzene**

CAS No.	100-41-4			
EINECS no.	202-849-4			
Registration no.	01-2119489370-35			
Concentration	>= 1	< 3		%
Classification (Regulation (EC) No. 1272/2008)				
	Flam. Liq. 2	H225		
	Acute Tox. 4	H332		Route of exposure: Inhalation exposure
	STOT RE 2	H373		Ear
	Asp. Tox. 1	H304		

**toluene**

CAS No.	108-88-3
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Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

**methyl methacrylate**

CAS No.	80-62-6			
EINECS no.	201-297-1			
Registration no.	01-2119452498-28			
Concentration	>= 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	

**cellulose nitrate < =12.6 % N**

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

**Note**

For explanation of abbreviations see section 16.

**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**

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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, CO<sub>2</sub>, powders, water spray/mist

###### **Non suitable extinguishing media**

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

##### **5.2. Special hazards arising from the substance or mixture**

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

##### **5.3. Advice for firefighters**

###### **Special protective equipment for fire-fighting**

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

###### **Other information**

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

#### **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.

#### **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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

##### 4-methylpentan-2-one

List	Directive 2017/164 EG			
Value	83	mg/m <sup>3</sup>	20	ppm(V)
Short term exposure limit	208	mg/m <sup>3</sup>	50	ppm(V)
Status:	12/2009			

##### 4-methylpentan-2-one

List	EH40			
Value	208	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	416	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

##### acetone

List	Directive 2017/164 EG			
Value	1210	mg/m <sup>3</sup>	500	ppm(V)
Status:	12/2009			

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**acetone**

List	EH40			
Value	1210	mg/m <sup>3</sup>	500	ppm(V)
Short term exposure limit	3620	mg/m <sup>3</sup>	1500	ppm(V)
Status:	01/2020			

**n-butyl acetate**

List	EH40			
Value	724	mg/m <sup>3</sup>	150	ppm(V)
Short term exposure limit	966	mg/m <sup>3</sup>	200	ppm(V)
Status:	01/2020			

**n-butyl acetate**

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

**xylene**

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

**xylene**

List	EH40			
Value	220	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	441	mg/m <sup>3</sup>	100	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

**ethylbenzene**

List	Directive 2017/164 EG			
Value	442	mg/m <sup>3</sup>	100	ppm(V)
Short term exposure limit	884	mg/m <sup>3</sup>	200	ppm(V)
Status:	12/2009			

**ethylbenzene**

List	EH40			
Value	441	mg/m <sup>3</sup>	100	ppm(V)
Short term exposure limit	552	mg/m <sup>3</sup>	125	ppm(V)
Skin resorption / sensibilisation:	Sk; Status: 01/2020			

**Other information**

-

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

**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		

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Mode of action	Systemic effects	
Concentration	600	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	600	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	6	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	300	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	300	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	



Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	35,7	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	35,7	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short term	
Route of exposure	oral	
Mode of action	Specific effects	
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
<b>4-methylpentan-2-one</b>		
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	208	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	208	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Mode of action	Systemic effects	
Concentration	83	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	83	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	11,8	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	14,7	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	14,7	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	155,2	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	155,2	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	4,2	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	4,2	mg/kg/d

**acetone**

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1210	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
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 <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	1210	mg/m <sup>3</sup>

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Mode of action	Systemic effects	
Concentration	200	mg/m <sup>3</sup>
<b>xylene</b>		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	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 <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	174	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	174	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	77	mg/m <sup>3</sup>

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	77	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
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/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	174	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	14,8	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	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
<b>toluene</b>		
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	343	mg/m <sup>3</sup>

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	384	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	192	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	192	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	384	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	226	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Short-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	226	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	56,5	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

**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 <sup>3</sup>

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 <sup>3</sup>

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 <sup>2</sup>

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 <sup>2</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	105	mg/m <sup>3</sup>



Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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 <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	1,5	mg/cm <sup>2</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	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 <sup>2</sup>

**Predicted No Effect Concentration (PNEC)**

**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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Type of value	PNEC		
Type	saltwater sediment		
Concentration	0,0981		mg/l
Type of value	PNEC		
Type	Soil		
Concentration	0,0903		mg/kg
<b>4-methylpentan-2-one</b>			
Type of value	PNEC		
Type	Freshwater		
Concentration	0,6		mg/l
Type of value	PNEC		
Type	Saltwater		
Concentration	0,06		mg/l
Type of value	PNEC		
Conditions	sporadic release		
Concentration	1,5		mg/l
Type of value	PNEC		
Type	Sewage treatment plant (STP)		
Concentration	27,5		mg/l
Type of value	PNEC		
Type	Fresh water sediment		
Concentration	8,27		mg/kg
Type of value	PNEC		
Type	saltwater sediment		
Concentration	0,83		mg/kg
Type of value	PNEC		
Type	Soil		
Concentration	1,3		mg/kg
<b>acetone</b>			
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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

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)		

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Concentration	6,58	mg/l
<b>toluene</b>		
Type of value	PNEC	
Type	Freshwater	
Concentration	0,68	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	16,39	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	2,89	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	13,61	mg/l
<b>methyl methacrylate</b>		
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.

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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**

<b>Form</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	solvent-like
<b>Odour threshold</b>	
Remarks	not determined
<b>Melting point</b>	
Remarks	not determined
<b>Freezing point</b>	
Remarks	not determined
<b>Initial boiling point and boiling range</b>	
Value	55,8 to 145 °C
<b>Flash point</b>	
Value	7 °C
<b>Evaporation rate</b>	
Remarks	not determined
<b>Flammability (solid, gas)</b>	
Remarks	not determined
<b>Upper/lower flammability or explosive limits</b>	
Remarks	not determined
<b>Vapour pressure</b>	
Remarks	not determined
<b>Vapour density</b>	
Remarks	not determined
<b>Density</b>	
Value	appr. 0,925 kg/l
Temperature	20 °C
<b>Solubility in water</b>	
Remarks	not determined

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**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	27	to	33	s
Temperature	20	°C		
Method	DIN 53211 4 mm			

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

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

Value	24,6	%
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 products**Carbon monoxide and carbon dioxide, nitrous oxides (NO<sub>x</sub>), dense black smoke, No decomposition if used as prescribed.**11. Toxicological information**

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**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 12,766 mg/l  
 Administration/Form Dust/Mist  
 Method calculated value (Regulation (EC) No. 1272/2008)  
 Remarks Based on available data, the classification criteria are not met.

**Acute inhalative toxicity (Components)****4-methylpentan-2-one**

Species rat  
 LC50 2,9 mg/l  
 Duration of exposure 4 h  
 Administration/Form Dust/Mist  
 Source 2 (reliable with restrictions)

**4-methylpentan-2-one**

ATE 11 mg/l  
 Administration/Form Vapors  
 Source Annex VI Hazardous Substance

**xylene**

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

**ethylbenzene**

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

evaluation Irritating to skin.  
Method EEC 84/449, B.4  
Source 1 (reliable without restriction)

**xylene**

Species rabbit  
Observation Period 72 h

evaluation Irritating to skin.  
Source 2 (reliable with restrictions)

**methyl methacrylate**

evaluation Irritating to skin.

**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)****4-methylpentan-2-one**

Species rabbit  
Observation Period 72 h  
evaluation Irritating to eyes and respiratory system.  
Source 1 (reliable without restriction)

**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)

**Sensitization**

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

**Sensitization (Components)****methyl methacrylate**

Species mouse  
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)****toluene**

evaluation Reproductive toxicity, Category 2

**Carcinogenicity**

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



Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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)**

**4-methylpentan-2-one**

evaluation May cause respiratory irritation.  
Route of exposure Inhalation exposure  
Organs: Nose, respiratory system, eyes  
Remarks May cause respiratory irritation.

**acetone**

**Specific target organ toxicity - repeated exposure**

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

**n-butyl acetate**

**Specific target organ toxicity - repeated exposure**

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

**toluene**

**Specific target organ toxicity - single exposure**

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

**toluene**

**Specific target organ toxicity - repeated exposure**

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

**xylene**

**Specific target organ toxicity - single exposure**

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

**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**

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

## 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	

## 12.2. Persistence and degradability

### General information

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

## 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

## 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
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Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

EWC waste code 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.

**14. Transport information**

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

**15. Regulatory information**

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

**VOC**

VOC (EU) 75,3 % 696 g/l

**Other information**

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

## 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.
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.

### CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, 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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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**

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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)

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

### Workers (industrial)

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

### Workers (industrial)

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

### Workers (industrial)

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

### Workers (industrial)

PROC	PROC13
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Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	200 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,05
Lead substance	acetone

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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

**Workers (industrial)**

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



Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**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	inhalation, long-term - systemic
	Indoor use
Risk characterisation ratio (RCR)	0,75
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
PROC	PROC7
Assessment method	dermal, long-term - systemic
	Indoor use
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
PROC	PROC10
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	inhalation, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
PROC	PROC13
Assessment method	dermal, long-term - systemic
Risk characterisation ratio (RCR)	0,5
Lead substance	4-methylpentan-2-one

**Workers (industrial)**

SU	SU3
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Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

PROC	PROC7
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC10
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene
<b>Workers (industrial)</b>	
SU	SU3
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,34
Lead substance	xylene

## Information on estimated exposure and downstream-user guidance

### **Guidance for Downstream Users**

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

## Annex to the extended Safety Data Sheet (eSDS)

### **Short title of the exposure scenario**

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

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**Physical form** liquid**Maximum amount used per time or activity**

Emission days per site: &lt;= 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
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**Disposal recommendations for packaging**

EWC waste code	150110 - packaging containing residues of or contaminated by dangerous substances
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Completely emptied packagings can be given for recycling.

**Contributing exposure scenario controlling worker exposure (professional)****Short title of the exposure scenario**

Substance number:CES006

**Use**

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
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PROC11	Non industrial spraying
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**Physical form** liquid**Maximum amount used per time or activity**

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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 &gt;= 0,7

Breakthrough time &gt;= 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	PROC11
Assessment method	Long-term inhalative
Exposure assessment	242 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,504
Lead substance	n-butyl acetate

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

SU	SU22
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Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

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

**Workers (professional)**

SU	SU22
PROC	PROC11
Assessment method	inhalative
	Indoor use
Exposure assessment	0,1 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA

Trade name: Hesse UNA-PUR, high gloss DE 559

Version: 55 / GB

Revision: 19.01.2021

Replaces Version: 54 / GB

Print date: 27.04.22

Risk characterisation ratio (RCR)	0,34
Lead substance	xylene
<b>Workers (professional)</b>	
SU	SU22
PROC	PROC13
Assessment method	inhalative
	Indoor use
Exposure assessment	0,05 mg/m <sup>3</sup>
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,172
Lead substance	xylene

## **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.