

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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

### 1.1. Product identifier

Hesse PU Thinner DV 4994  
 n-butyl acetate

#### Registration no.

EC No.: 204-658-1  
 Registration no. 01-2119485493-29  
 CAS No. 123-86-4

### 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 1002  
 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  
 PROCh02 roller coating industrial  
 -----

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  
 -----

REACHSET 2003  
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
 ERC8a Wide dispersive indoor use of processing aids in open systems  
 ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix  
 PROC10 Roller application or brushing  
 -----

REACHSET 3001  
 SU21 Consumer uses: Private households (= general public = consumers)  
 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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

SU21  
ERC8a  
ERC8c  
PROC10

-----  
REACHSET 3003

Consumer uses: Private households (= general public = consumers)

Wide dispersive indoor use of processing aids in open systems

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

Roller application or brushing

**1.3. Details of the supplier of the safety data sheet****Manufacturer**

Hesse GmbH &amp; Co. KG

Warendorfer Strasse 21

59075 Hamm

Telephone no. +49 (0) 2381 963-00

Fax no. +49 (0) 2381 963-849

E-mail address ps@hesse-lignal.de

**1.4. Emergency telephone number**

Germany: +49 (0) 2381 788-612

**2. Hazards identification****2.1. Classification of the substance or mixture****Classification (Regulation (EC) No. 1272/2008)**

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

Flam. Liq. 3 H226

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****Labelling according to regulation (EC) No 1272/2008****Hazard pictograms****Signal word**

Warning

**Hazard statements**

H226 Flammable liquid and vapour.

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.

P308+P313 IF exposed or concerned: Get medical advice/ attention.

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**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	

**Note**

For explanation of abbreviations see section 16.  
 This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) (if not listed in Section 3).

**4. First aid measures****4.1. Description of first aid measures****General information**

In all cases of doubt, or when symptoms persist, seek medical attention. If unconscious place in recovery position and seek medical advice. 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.

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

### 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

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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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. 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

Keep away from heat. Protect from 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

#### 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			

#### Other information

-

### 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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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

Appropriate Material butyl-rubber

Material thickness  $\geq$  0,7 mmBreakthrough time  $\geq$  30 min

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

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

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

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

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

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

**Eye protection**

Wear eye glasses with side protection according to EN 166.

**Body protection**

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

**9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Form</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	characteristic
<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	124 to 128 °C
<b>Flash point</b>	
Value	25 °C
<b>Evaporation rate</b>	
Remarks	not determined
<b>Flammability (solid, gas)</b>	
not determined	

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**Upper/lower flammability or explosive limits**

Remarks not determined

**Vapour pressure**

Remarks not determined

**Vapour density**

Remarks not determined

**Density**

Value	appr. 0,88			kg/l
Temperature	20	°C		

**Solubility in water**

Remarks not determined

**Solubility(ies)**

Remarks not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**Ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**Viscosity**

Remarks not determined

**Efflux time**

Value	20	to	100	s
Temperature	20	°C		
Method	DIN EN ISO 2431 - 3 mm			

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

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

Value	0	%
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**

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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****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**

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.

**Skin corrosion/irritation**

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

**Serious eye damage/irritation**

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

**Sensitization**

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

**Mutagenicity**

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

**Reproductive toxicity**

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

**Carcinogenicity**

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

**Specific Target Organ Toxicity (STOT)****Single exposure**

Method	Calculation method (Regulation (EC) No. 1272/2008)
Remarks	The classification criteria are met.
evaluation	May cause drowsiness or dizziness.

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**Repeated exposure**

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

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

**n-butyl acetate**

**Specific target organ toxicity - repeated exposure**

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

**Aspiration hazard**

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

**Other information**

No toxicological data are available.

**12. Ecological information**

**12.1. Toxicity**

**General information**

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

**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**

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**Disposal recommendations for the product**

EWC waste code 140603 - other solvents and solvent mixtures

EWC waste code 200113 - solvents

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

**modified product**

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

**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>	1123	1123	1123
<b>14.2. UN proper shipping name</b>	BUTYL ACETATES	BUTYL ACETATES	BUTYL ACETATES
<b>14.3. Transport hazard class(es)</b>	3	3	3
Label			
<b>14.4. Packing group</b>	III	III	III
Limited Quantity	5 l		
Transport category	3		
<b>14.5. Environmental hazards</b>		no	

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

VOC (EU) 100 % 880 g/l

**15.2. Chemical safety assessment**

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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

## 16. Other information

### Hazard statements listed in Chapter 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

### CLP categories listed in Chapter 3

Flam. Liq. 3	Flammable liquid, Category 3
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

### Abbreviations

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

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

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

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

The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

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

### Short title of the exposure scenario

ES005 - 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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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: &lt;= 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	140603 - other solvents and solvent mixtures
	200113 - solvents

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

### **modified product**

EWC waste code	070304 - other organic solvents, washing liquids and mother liquors
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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**

### **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 &lt;= 8 h/d

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

Frequency of exposure &lt;= 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

Appropriate Material 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 (industrial)**

PROC

Assessment method

PROC7

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

Assessment method

PROC10

inhalation, long-term - systemic

Indoor use

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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

## 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**

ES007 - 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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**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: &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 140603 - other solvents and solvent mixtures  
 200113 - solvents

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

**modified product**

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

**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:CES014

**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**

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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

Appropriate Material butyl-rubber

Material thickness  $\geq$  0,7Breakthrough time  $\geq$  30

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

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

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

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

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

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

**Eye protection**

Wear eye glasses with side protection according to EN 166.

**Body protection**

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

**Exposure estimation and reference to its source****Workers (professional)**

SU	SU22
PROC	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

**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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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**

ES006 - Industrial applications: rolling, dipping, pouring and other processing without aerosol formation (inside)

### **Use of the substance/preparation**

Surface treatment of wood and other materials

### **Use**

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
ERC4	Industrial use of processing aids in processes and products, not becoming part of articles
ERC5	Industrial use resulting in inclusion into or onto a matrix
PROCh01	Other processing without aerosol formation
PROCh02	roller coating industrial
PROC13	Treatment of articles by dipping and pouring

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

### **Use**

ERC4	Industrial use of processing aids in processes and products, not becoming part of 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.

### **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	140603 - other solvents and solvent mixtures
	200113 - solvents

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

### **modified product**

EWC waste code	070304 - other organic solvents, washing liquids and mother liquors
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Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**Disposal recommendations for packaging**

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

Completely emptied packagings can be given for recycling.

**Contributing exposure scenario controlling worker exposure****Use**

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
PROCh01	Other processing without aerosol formation
PROCh02	roller coating industrial
PROC13	Treatment of articles by dipping and pouring

**Physical form**

liquid

**Maximum amount used per time or activity**

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

**Other relevant operational conditions**

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

**Product substance and product safety related measures**

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

**Respiratory protection**

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

**Hand protection**

Protective gloves complying with EN 374.

Glove material

Appropriate Material 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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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
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

## Information on estimated exposure and downstream-user guidance

### Guidance for Downstream Users

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

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

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

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

ES008 - Professional uses: roller application or brushing, dipping and pouring and other processing without aerosol formation (inside)

### **Use of the substance/preparation**

Surface treatment of wood and other materials

### **Use**

SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROCh01	Other processing without aerosol formation
PROC10	Roller application or brushing
PROC13	Treatment of articles by dipping and pouring

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

### **Use**

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

### **Physical form**

liquid

### **Maximum amount used per time or activity**

Emission days per site: <= 250

### **Other relevant operational conditions**

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

### **Waste water**

Do not discharge into the drains/surface waters/groundwater.

### **Exhaust air**

Keep container closed. Avoid release to the environment.

### **Soil**

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

### **Disposal recommendations for the product**

EWC waste code	140603 - other solvents and solvent mixtures
	200113 - solvents

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

### **modified product**

EWC waste code	070304 - other organic solvents, washing liquids and mother liquors
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### **Disposal recommendations for packaging**

EWC waste code	150110 - packaging containing residues of or contaminated
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Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

Completely emptied packagings can be given for recycling.  
 by dangerous substances

## **Contributing exposure scenario controlling worker exposure (professional)**

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

Substance number: CES016

### **Use**

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
 PROCh01 Other processing without aerosol formation  
 PROC10 Roller application or brushing  
 PROC13 Treatment of articles by dipping and pouring

### **Physical form**

liquid

### **Maximum amount used per time or activity**

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

### **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  
 Appropriate Material 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.

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

**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

**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**

ES010 - Private households (= general public = consumers): roller application or brushing, dipping and pouring, non industrial spraying and other processing without aerosol formation (inside)

**Use of the substance/preparation**

Surface treatment of wood and other materials

**Use**

SU21	Consumer uses: Private households (= general public = consumers)
ERC8a	Wide dispersive indoor use of processing aids in open systems
ERC8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
PROCh01	Other processing without aerosol formation
PROC10	Roller application or brushing
PROC11	Non industrial spraying
PROC13	Treatment of articles by dipping and pouring

**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: <= 20

**Other relevant operational conditions**

Use: Room temperature  
Adhere to the recommended processing temperature.  
Volatile organic substances will volatilise into the atmospheric air inside.

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

Do not allow to enter soil, waterways or waste water canal.

**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. Protect floor with suitable covering plastic film / paper.

**Disposal recommendations for the product**

EWC waste code 140603 - other solvents and solvent mixtures  
200113 - solvents

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

**modified product**

EWC waste code 070304 - other organic solvents, washing liquids and mother liquors

**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 consumer exposure****Use**

SU21 Consumer uses: Private households (= general public = consumers)  
PROCh01 Other processing without aerosol formation  
PROC10 Roller application or brushing  
PROC11 Non industrial spraying  
PROC13 Treatment of articles by dipping and pouring

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

Duration of exposure	<=	4	h/d
Frequency of exposure	<=	20	d/a

**Other relevant operational conditions**

Use: Room temperature  
Drying and through-curing takes place at ambient temperature or at higher temperatures.  
Adhere to the recommended processing temperature.  
Volatile organic substances will volatilise into the atmospheric air inside.

**Product substance and product safety related measures**

Keep out of reach of children. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product.

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

Protective gloves complying with EN 374.

Glove material

Appropriate Material butyl-rubber

Material thickness >= 0,7

Trade name: Hesse PU Thinner DV 4994

Version: 21 / GB

Revision: 25.03.2021

Replaces Version: 20 / GB

Print date: 28.03.21

Breakthrough time  $\geq$  30

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

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

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

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

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

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

Wear eye glasses with side protection according to EN 166.

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

## **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.