

Trade name: Hesse UV Top coat for roller coating clear, dull matt UU 74501

Version: 39 / WORLD

Revision: 19.07.2022

Replaces Version: 38 / WORLD

Print date: 27.08.22

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

1.1. Product identifier

Hesse UV Top coat for roller coating clear, dull matt UU 74501

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 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

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)	
Eye Dam. 1	H318
Skin Sens. 1	H317
Skin Irrit. 2	H315
Aquatic Chronic 3	H412

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

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

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**Signal word**

Danger

Hazard statements

H317 May cause an allergic skin reaction.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264.1 Wash hands thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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 trimethylolpropane triacrylate, ethoxylated (3 EO); oxybis(methyl-2,1-ethanediyl) diacrylate; methyl benzoylformate; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

3. Composition/information on ingredients**Hazardous ingredients****oxybis(methyl-2,1-ethanediyl) diacrylate**

CAS No. 57472-68-1
 EINECS no. 260-754-3
 Registration no. 01-2119484629-21
 Concentration \geq 25 < 50 %
 Classification (Regulation (EC) No. 1272/2008)
 Eye Dam. 1 H318
 Skin Irrit. 2 H315
 Skin Sens. 1 H317

trimethylolpropane triacrylate, ethoxylated (3 EO)

CAS No. 28961-43-5
 EINECS no. 500-066-5
 Registration no. 01-2119489900-30
 Concentration \geq 1 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Eye Irrit. 2 H319
 Skin Sens. 1B H317

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

CAS No. 55818-57-0

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EINECS no. 500-130-2
 Registration no. 01-2119490020-53
 Concentration ≥ 3 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Sens. 1 H317
 Aquatic Chronic 2 H411

methyl benzoylformate

CAS No. 15206-55-0
 EINECS no. 239-263-3
 Registration no. 01-2120101338-67
 Concentration ≥ 1 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Sens. 1 H317

2-methoxy-1-methylethyl acetate

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

4-morpholinecarbaldehyde

CAS No. 4394-85-8
 EINECS no. 224-518-3
 Registration no. 01-2119987993-12
 Concentration $\geq 0,1$ < 1 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Sens. 1 H317

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

In case of accidental skin or eye contact, avoid exposure to ultra-violet light. 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.

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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.

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

Hints for the physician / treatment

Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Non suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment for fire-fighting

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

Other information

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

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7.1. Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Keep container tightly closed and dry in a cool, well-ventilated place. Use only with adequate ventilation/personal protection. Ensure adequate ventilation. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. Avoid contact with skin and eyes. Avoid inhalation of vapour and spray mist. Do not eat, drink or smoke when using this product. Use personal protective clothing. For personal protection see Section 8.

Advice on protection against fire and explosion

Vapours can form an explosive mixture with air. Vapours are heavier than air and may spread along floors. Take measures to prevent the build up of electrostatic charge. 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 10 Flammable liquids

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

Other information

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Derived No/Minimal Effect Levels (DNEL/DMEL)

2-methoxy-1-methylethyl acetate

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	275	mg/m ³

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

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Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	153,5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,67	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	33	mg/m ³

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

trimethylolpropane triacrylate, ethoxylated (3 EO)

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	0,5	mg/kg/d

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	0,8	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	16,2	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	0,48	mg/kg/d

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Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	4,9	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	1,39	mg/kg/d

oxybis(methyl-2,1-ethanediyl) diacrylate

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	2,77	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	24,48	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Systemic effects	
Concentration	1,66	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	7,24	mg/m ³

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Oral exposure	
Mode of action	Systemic effects	
Concentration	2,08	mg/kg/d

4-morpholinecarbaldehyde

Type of value	Derived No Effect Level (DNEL)	
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Reference group	Workers (professional)	
Duration of exposure	Long-term	
Route of exposure	Dermal exposure	
Mode of action	Local effects	
Concentration	0,293	mg/cm ²

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	98	g/cm ³

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

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	29	mg/m ³

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

methyl benzoylformate

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	3,33	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	1,67	mg/kg/d

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

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Mode of action	Systemic effects	
Concentration	1,67	mg/kg/d

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

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	17,5	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Workers (industrial)	
Duration of exposure	Long-term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	122,5	mg/m ³

Predicted No Effect Concentration (PNEC)

2-methoxy-1-methylethyl acetate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,635	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	0,0635	mg/l

Type of value	PNEC	
Conditions	sporadic release	
Concentration	6,35	mg/l

Type of value	PNEC	
Type	Fresh water sediment	
Concentration	3,29	mg/kg

Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,329	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	0,29	mg/kg

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

trimethylolpropane triacrylate, ethoxylated (3 EO)

Type of value	PNEC	
Type	Soil	

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Concentration	0,00587	mg/kg
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,0082	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,0082	mg/kg
Type of value	PNEC	
Type	Freshwater	
Concentration	0,00195	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,000195	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,0195	mg/l
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

oxybis(methyl-2,1-ethanediyl) diacrylate

Type of value	PNEC	
Type	Freshwater	
Concentration	0,0034	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,00034	mg/l
Type of value	PNEC	
Conditions	sporadic release	
Concentration	0,034	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	0,00884	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	0,000884	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	0,0013	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	

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Concentration 100 mg/l

4-morpholinecarbaldehyde

Type of value PNEC
Type Freshwater
Concentration 0,5 mg/l

Type of value PNEC
Type marine water
Concentration 0,05 mg/l

Type of value PNEC
Type Sewage treatment plant (STP)
Concentration 2000 mg/l

Type of value PNEC
Type Fresh water sediment
Concentration 1,85 mg/kg

Type of value PNEC
Type saltwater sediment
Concentration 0,0764 mg/kg

methyl benzoylformate

Type of value PNEC
Type Water
Concentration 0,069 mg/l

Type of value PNEC
Type marine water
Concentration 0,007 mg/l

Type of value PNEC
Type Sewage treatment plant (STP)
Concentration 39 mg/l

Type of value PNEC
Type Fresh water sediment
Concentration 0,47 mg/l

Type of value PNEC
Type saltwater sediment
Concentration 0,027 mg/kg

Type of value PNEC
Type Soil
Concentration 0,027 mg/kg

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Type of value PNEC
Type Freshwater

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Concentration	0,1	mg/l
Type of value	PNEC	
Type	Saltwater	
Concentration	0,01	mg/l
Type of value	PNEC	
Type	Fresh water sediment	
Concentration	35,8	mg/kg
Type of value	PNEC	
Type	saltwater sediment	
Concentration	3,58	mg/kg
Type of value	PNEC	
Type	Soil	
Concentration	71	mg/kg
Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	10	mg/l

8.2. Exposure controls

Exposure controls

Users are advised to consider national Occupational Exposure Limits or other equivalent values. Provide for sufficient ventilation. This can be achieved by local exhaust or general exhaust air collection. Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values.

Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness \geq 0,7 mm

Breakthrough time \geq 30 min

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

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

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

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

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

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

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	liquid
Colour	colourless
Odour	characteristic
Odour threshold	
Remarks	not determined
Melting point	
Remarks	not determined
Freezing point	
Remarks	not determined
Initial boiling point and boiling range	
Value	145,8 to 145,8 °C
Flash point	
Value	> 60 °C
Evaporation rate	
Remarks	not determined
Flammability (solid, gas)	not determined
Upper/lower flammability or explosive limits	
Remarks	not determined
Vapour pressure	
Remarks	not determined
Vapour density	
Remarks	not determined
Density	
Value	appr. 1,242 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	

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Value	63	to	77	s
Temperature	20	°C		
Method	DIN 53211 - 6 mm			

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

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

Value	97	%
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

This mixture contains materials which are unstable under the following conditions: exposure to heat (>50°C), strong UV sources. These could cause the product to polymerise exothermically.

10.5. Incompatible materials

Keep away from free radical initiators, peroxides, strong alkalis or reactive metals.

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

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

Acute dermal toxicity

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

evaluation irritant

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

Skin corrosion/irritation (Components)

oxybis(methyl-2,1-ethanediyl) diacrylate
 evaluation Skin irritation

Serious eye damage/irritation

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

Serious eye damage/irritation (Components)

oxybis(methyl-2,1-ethanediyl) diacrylate
 Species rabbit

trimethylolpropane triacrylate, ethoxylated (3 EO)

Species rabbit
 Observation Period 14 d
 evaluation Irritating to eyes.

Sensitization

evaluation May cause sensitization by skin contact.
 Method Calculation method (Regulation (EC) No. 1272/2008)
 Remarks The classification criteria are met.

Sensitization (Components)**trimethylolpropane triacrylate, ethoxylated (3 EO)**

Species mouse
 evaluation May cause sensitization by skin contact.

oxybis(methyl-2,1-ethanediyl) diacrylate

evaluation May cause sensitization by skin contact.

4-morpholinecarbaldehyde

Species mouse

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

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.

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

Repeated exposure

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

Specific Target Organ Toxicity (STOT) (Components)**2-methoxy-1-methylethyl acetate****Specific target organ toxicity - repeated exposure**

evaluation

May cause drowsiness or dizziness.

Organs: Nervous system

Aspiration hazard

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

Other information

No toxicological data are available.

12. Ecological information**12.1. Toxicity****General information**

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

Fish toxicity (Components)**4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid**

Species	zebra fish (<i>Brachydanio rerio</i>)		
LC50	5,74		mg/l
Duration of exposure	96	h	
Method	OECD 203		

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Species	Pimephales promelas (fathead minnow)		
NOEC	0,25		mg/l
Duration of exposure	33	d	
Method	OECD 210		

Daphnia toxicity (Components)**4-morpholinecarbaldehyde**

Species	Daphnia magna (Water flea)		
EC50	> 500		mg/l
Duration of exposure	48	h	

12.2. Persistence and degradability**General information**

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

Biodegradability (Components)**4-morpholinecarbaldehyde**

Value	100	%
Remarks	Readily biodegradable.	

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Value	42	%
evaluation	Not readily biodegradable.	

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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

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

Disposal recommendations for packaging

Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled.

14. Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number	Not classified as dangerous in the meaning of transport regulations.	Not classified as dangerous in the meaning of sea and air transport regulations.	Not a dangerous substance as defined in the above regulations.

15. Regulatory information ***

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

VOC ***

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VOC (EU) 2,9 % 36 g/l

Other information

All components are contained in the ENCS inventory.

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**

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
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

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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

ES013 - 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.

Curing takes place through UV light exposure.

Where possible recycling is preferred to disposal or incineration.

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

Dispose of rinse water in accordance with local and national regulations.

Waste water

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

Exhaust air

Keep container closed. Avoid release to the environment.

Soil

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

Disposal recommendations for the product

Where possible recycling is preferred to disposal or incineration.

Do not allow to enter drains or waterways.

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Disposal recommendations for packaging

Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled.

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

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.
 Curing takes place through UV light exposure.
 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.

Hand protection

Protective gloves complying with EN 374.

Glove material

Multilayer gloves made from

Appropriate Material Fluorinated rubber / butyl-rubber

Material thickness >= 0,7

Breakthrough time >= 30

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

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

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

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

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

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

Eye protection

Wear eye glasses with side protection according to EN 166.

Body protection

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

Exposure estimation and reference to its source

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Workers (industrial)

PROC	PROC7
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	5,057 mg/m ³
Exposure assessment (method)	qualitative assessment
Risk characterisation ratio (RCR)	0,207
Lead substance	oxybis(methyl-2,1-ethanediyl) diacrylate

Workers (industrial)

PROC	PROC10
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	10,113 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,413
Lead substance	oxybis(methyl-2,1-ethanediyl) diacrylate

Workers (industrial)

PROC	PROCh02
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	10,113 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,413
Lead substance	oxybis(methyl-2,1-ethanediyl) diacrylate

Workers (industrial)

PROC	PROC13
Assessment method	inhalation, long-term - systemic
	Indoor use
Exposure assessment	10,113 mg/m ³
Exposure assessment (method)	ECETOC TRA
Risk characterisation ratio (RCR)	0,413
Lead substance	oxybis(methyl-2,1-ethanediyl) diacrylate

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.