

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010

**FreiLacke**

Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012 99500 EN  
version: Date of issue: 26.06.2012 page:1 / 7

**1. Identification of the substance/ preparation and of the company/ undertaking**

**1.1. Product identifiers:**

Article no. (manufacturer / supplier): UR1929GRA999  
Identification of the substance or preparation: EFDEDUR-Clearcoat  
transparent  
MR 5:1 HU0010 / 3:1 HU0062

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

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

**Supplier (manufacturer/importer/downstream user/distributor):**

Emil Frei GmbH & Co.KG  
Döggingen Telephone: + 49 (0) 7707/151-0  
Am Bahnhof 6 Telefax: + 49 (0) 7707/151-238  
D - 78199 Bräunlingen, Germany E-mail: info@freilacke.de  
homepage: www.freilacke.de

**Dept. responsible for information:**

Product Safety  
E-mail: info@freilacke.de

**1.4. Emergency telephone number**

Emergency telephone: GBK Gefahrgut Büro GmbH, + 49 (0) 6132-84463  
(24-Hour-Number)

**2. Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Directive 67/548/EEC or 1999/45/EC**

The preparation is dangerous in the sense of Directive 1999/45/EC.

R10  
Xi; R36/38 Irritant  
R52-53

Flammable.  
Irritating to eyes and skin.  
Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Labelling (67/548/EEC or 1999/45/EC)**



Xi Irritant

**Hazard Statements:**

10 Flammable.  
36/38 Irritating to eyes and skin.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety precautions:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
38 In case of insufficient ventilation, wear suitable respiratory equipment.  
51 Use only in well-ventilated areas.  
61 Avoid release to the environment. Refer to special instructions / safety data sheet.  
23 Do not breathe vapour.

**contains:**

4-hydroxy-4-methylpentan-2-one

**Special provisions concerning the labelling of certain mixtures**

99 Contains methyl methacrylate; 2-hydroxyethyl methacrylate; 2,3-Epoxypropylneodecanoat. May produce an allergic reaction.

**2.3. Other hazards**

**3. Composition/ Information on ingredients**

**3.2. Mixtures**

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010

**FreiLacke**

Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012  
version: Date of issue: 26.06.2012

99500 EN  
page:2 / 7

**chemical characterization (preparation)**

**Description:** Preparation based on acrylresin,  
hardener based on polyisocyanate.

**Hazardous ingredients:**

**Classification according to Directive 67/548/EEC or 1999/45/EC**

EC No: CAS No.: INDEX no.:	REACH No: Identification of the hazard: classification:	% by weight Remark:
203-603-9 108-65-6 607-195-00-7	01-2119475791-29 2-methoxy-1-methylethyl acetate R10	20 < 25 *
204-626-7 123-42-2 603-016-00-1	4-hydroxy-4-methylpentan-2-one Xi; R36	12,5 < 20
215-535-7 1330-20-7 601-022-00-9	xylene, mixture of isomers R10 / Xn; R20/21 / Xi; R38	5 < 10
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-0000 n-butyl acetate R10 / R66 / R67	5 < 10
265-199-0 64742-95-6 649-356-00-4	Solvent Naphta (Petroleum), leicht aromatisch R10 / Xn; R65 / Xi; R37 / R66 / R67 / N; R51-53	5 < 10
202-849-4 100-41-4 601-023-00-4	ethylbenzene F; R11 / Xn; R20	2,5 < 5
400-580-9	Gehindertes Aminderivat Xi; R38 / N; R51-53	< 0,5
26761-45-5 247-979-2	2,3-Epoxypropylneodecanoat R43 / N; R51-53	< 0,5

**Additional information**

Full text of R-phrases: see section 16.

**4. First-aid measures**

**4.1. Description of first aid measures:**

**General information:**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in unconscious position and seek medical advice.

**After inhalation**

Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration.

**In case of skin contact:**

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**In case of eye contact:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice.

**After ingestion:**

If swallowed, rinse mouth with water (only if the person is conscious). Consult physician immediately. Keep victim calm. Do not induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012  
version: Date of issue: 26.06.2012

99500 EN  
page:3 / 7

## 5. Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

alcohol resistant foam, Carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**

Strong water jet

### 5.2. Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases:

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

### 5.3. Special protective equipment for firefighters:

Provide a conveniently located respiratory protective device.

**Additional information:**

Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

## 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours. See protective measures under point 7 and 8.

### 6.2. Environmental measures

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

### 6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

### 6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

## 7. Handling and storage

### 7.1. Precautions for safe handling

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protective equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air and will spread at floor level. Vapours form explosive mixtures with air.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storerooms and containers:**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 25 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

**Safety Data Sheet**  
 according to Regulation (EC) No. 1907/2006 (REACH)  
 according to Regulation (EU) No 453/2010



Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
 Date of print: 26.06.2012 Revision date: 09.05.2012  
 version: Date of issue: 26.06.2012

99500 EN  
 page:4 / 7

7.3. **Specific end use(s)**  
 Observe technical data sheet. Observe instructions for use.

**8. Exposure controls / Personal protection**

8.1. **Control parameters**

EC No: CAS No.:	Description:	type:	Limit value		unit
			STEL (EC)	TWA (EC)	
215-535-7 1330-20-7	xylene, mixture of isomers	EN	441	220	mg/m <sup>3</sup> ppm
202-849-4 100-41-4	ethylbenzene	EN	552	441	mg/m <sup>3</sup> ppm
204-626-7 123-42-2	4-hydroxy-4-methylpentan-2-one	EN	362	241	mg/m <sup>3</sup> ppm
204-658-1 123-86-4	n-butyl acetate	EN	966	724	mg/m <sup>3</sup> ppm
203-603-9 108-65-6	2-methoxy-1-methylethyl acetate	EN	548	274	mg/m <sup>3</sup> ppm
265-199-0 64742-95-6	Solvent Naphta (Petroleum), leicht aromatisch	EG		200	mg/m <sup>3</sup> ppm

**Additional information**

TWA (EC): Occupational exposure limit value  
 STEL (EC): Short term occupational exposure limit value

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls:**

**Respiratory protection:**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection:**

For prolonged or repeated handling the following glove material must be used:  
 Thickness of the glove material: > 0,4 mm ; penetration time (maximum wearing period): > 480 min.  
 Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles: DIN EN 374  
 Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection:**

Wear closely fitting protective glasses in case of splashes.

**Body protection:**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures:**

After contact clean skin thoroughly with water and soap oder use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. refer to chapter 7. No further action is necessary.

**9. Physical and chemical properties**

9.1. **information on basic physical and chemical properties**

**Appearance:**

**Physical state:** liquid  
**Colour:** colorless  
**Odour:** typical

Safety relevant basis data	unit	Method	Remark:
Flash point:	> 23 °C	--	
Ignition temperature (AIT):	315 °C	--	
lower explosion limit:	1,1 Vol-%	--	
Upper explosion limit:	10,8 Vol-%	--	

Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012 99500 EN  
version: Date of issue: 26.06.2012 page:5 / 7

<b>Vapour pressure (at temperature in °C): 20</b>	2,54 mbar	
<b>density (at temperature in °C): 20</b>	0,98 g/cm <sup>3</sup>	--
<b>Water solubility (g/l):</b>	partial soluble	
<b>pH (at temperature in °C): 20</b>	not applicable	--
<b>Viscosity (at temperature in °C): 20</b>	> 22 s 4 mm	cup
<b>Solvent separation test (%):</b>	< 3 %	
<b>Solid content (%):</b>	35 % by weight	
<b>solvent content:</b>		
<b>Organic solvents::</b>	65 % by weight	
<b>Water:</b>	0 % by weight	
<b>boiling temperature / boiling range:</b>	127 °C	--

9.2. **Other information:**

**10. Stability and reactivity**

10.1. **Reactivity**

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

**11. Toxicological information**

No data on preparation itself available.

11.1. **Information on toxicological effects**

**Acute toxicity**

Toxicological data are not available.

**Irritant and corrosive effects**

Toxicological data are not available.

**Sensitisation**

Toxicological data are not available.

**Specific target organ toxicity**

Toxicological data are not available.

**Aspiration hazard:**

Toxicological data are not available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Toxicological data are not available.

**Practical experience**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties:**

The components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

There is no information available on the preparation itself . The preparation has been assessed following the conventional

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010

**FreiLacke**



Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012  
version: Date of issue: 26.06.2012

99500 EN  
page:6 / 7

method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

## 12. Ecological information

### Overall evaluation:

There is no information available on the preparation itself.  
Do not allow to enter into surface water or drains.

### 12.1. Toxicity

No information available.

### Long Term Ecotoxicity

Toxicological data are not available.

### 12.2. Persistence and degradability

Toxicological data are not available.

### 12.3. Bioaccumulative potential

Toxicological data are not available.

### Bioconcentration factor (BCF):

Toxicological data are not available.

### 12.4. Mobility in soil

Toxicological data are not available.

### 12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

### 12.6. Other adverse effects

## 13. Disposal considerations

### 13.1. Waste treatment methods

#### Appropriate disposal / Product

#### Recommendation:

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.

#### Control report for waste code/ waste marking according to EAKV:

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

#### Contaminated packaging:

#### Recommendation:

Cleaned containers may be recycled. Vessels not properly emptied are special waste.

## 14. Transport information

### 14.1. UN-No.:

1263

### 14.2. UN proper shipping name

Land transport (ADR/RID): Paint  
Sea transport (IMDG): PAINT  
Air transport (ICAO-TI / IATA-DGR): Paint

### 14.3. Transport hazard class(es)

3

### 14.4. Packing Group:

III

### 14.5. Environmental hazards:

Land transport (ADR/RID) not applicable  
Marine pollutant: not applicable

### 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010

**FreiLacke**

Article no.: UR1929GRA999 EFDEDUR-Clearcoat  
Date of print: 26.06.2012 Revision date: 09.05.2012  
version: Date of issue: 26.06.2012

99500 EN  
page:7 / 7

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Further remarks:**

**Land transport (ADR/RID)**

Tunnel restriction code: D/E

**Sea transport (IMDG)**

EmS-No.: F-E, S-E

14.7.

not applicable

**15. Regulatory information**

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

**EU legislation**

**Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**

VOC-value (in g/l) ISO 11890-2: 639

VOC-value (in g/l) ASTM D 2369: 639

**National regulations**

**Informations on working limitations:**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

**15.2. Chemical Safety Assessment**

Chemical safety assessments for substances in this preparation were not carried out.

**16. Other information**

**Wording of the r-phrases under paragraph 3:**

R10		Flammable.
Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
Xi; R38	Irritant	Irritating to skin.
F; R11	Highly flammable	Highly flammable
Xn; R20	Harmful	Harmful by inhalation.
Xi; R36	Irritant	Irritating to eyes.
R66		Repeated exposure may cause skin dryness or cracking.
R67		Vapours may cause drowsiness and dizziness.
N; R51-53	Dangerous for the environment	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R43		May cause sensitization by skin contact.
Xn; R65	Harmful	Harmful: may cause lung damage if swallowed.
Xi; R37	Irritant	Irritating to respiratory system.

**Further remarks:**

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.