

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

OrmoClad

Print date: 17.08.2011

Product code: R41222D

Page 1 of 4

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

Product group: Hybridpolymere

Identification of the substance or preparation

OrmoClad

Use of the substance/preparation

Chemical Speciality

Company/undertaking identification

Company name: micro resist technology GmbH

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Place: D-12555 Berlin

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Internet: www.microresist.de

Further Information

This number is serviced during office hours.

2. Hazards identification**Classification**

R-phrases:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients**Chemical characterization (Mixture)**

inorganic-organic hybrid polymer, unsaturated, partially fluorinated

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
404-360-3	119313-12-1	2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	0,25 - 1,00 %	N R50-53

Full text of each relevant R phrase can be found in heading 16.

4. First aid measures**General information**

Take off immediately all contaminated clothing.

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. If victim is at risk of losing consciousness, position and transport on their side.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink large quantities of water. Seek medical attention if problems persist.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

OrmoGlad

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Product code: R41222D

Page 2 of 4

5. Fire-fighting measures**Suitable extinguishing media**Carbon dioxide (CO₂). Dry extinguishing powder. Foam.**Extinguishing media which must not be used for safety reasons**

Water.

Special protective equipment for fire-fighters

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

6. Accidental release measures**Personal precautions**Provide adequate ventilation. The following must be prevented: inhalation. skin contact. Eye contact.
Remove all sources of ignition.**Environmental precautions**

Do not empty into drains or the aquatic environment. In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

Methods for cleaning up/taking upAbsorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Do not rinse down with water. Collect in closed containers for disposal. Clean contaminated objects and areas thoroughly observing environmental regulations.**7. Handling and storage****Handling****Advice on safe handling**

Use only in well-ventilated areas.

Advice on protection against fire and explosion

Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

Storage**Requirements for storage rooms and vessels**Keep container tightly closed and in a well-ventilated place. storage temperature: of °C: 18 up to °C: 25
Recommended storage temperature: of °C: 10 up to °C: 15. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.**Further information on storage conditions**

Protect against: heat. UV-radiation/sunlight.

8. Exposure controls/personal protection**Exposure limit values****Exposure controls****Protective and hygiene measures**

When using do not eat, drink or smoke. Protect skin by using skin protective cream. After work, wash hands and face. Immediately remove any wetted clothing, shoes or stockings.

Respiratory protection

Respiratory protection required in case of: insufficient absorption.

Hand protectionTested protective gloves are to be worn: Single-use gloves.
Type of chemical protective gloves to choose depends on the concentration and quantity of dangerous substances as well as on work place specifications.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

OrmoGlad

Print date: 17.08.2011

Product code: R41222D

Page 3 of 4

In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.

Breakthrough times and swelling characteristics of the material must be taken into consideration.

Before using check leak tightness / impermeability.

Eye protection

Suitable eye protection: Tightly sealed safety glasses.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

9. Physical and chemical properties

General information

Physical state:	liquid
Colour:	transparent
Odour:	characteristic

Important health, safety and environmental information

Test method

Changes in the physical state

Melting point:	not determined, <0 °C
Boiling point:	not determined, >100 °C
Flash point:	not determined, >100 °C
Ignition temperature:	not determined
Density (at 25 °C):	1,154-1,274 g/cm³
Water solubility:	insoluble
Viscosity / dynamic: (at 25 °C)	2000-4000 mPa·s

Other information

10. Stability and reactivity

Conditions to avoid

UV-radiation/sunlight. heat. Remove all sources of ignition. Take precautionary measures against static discharges.

Materials to avoid

Oxidizing agents, strong. Acid, concentrated. Alkalis (alkalis), concentrated.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx).

11. Toxicological information

Acute toxicity

Acute toxicity, oral LD50: >2000 mg/kg species: Rat.
(2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)
Acute toxicity, dermal LD50: >2000 mg/kg species: Rat.
(2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)
The statement is derived from the properties of the components.

12. Ecological information

Ecotoxicity

Acute fish toxicity LC50: 0.46 mg/l/96h species: Brachydanio rerio

Safety Data Sheet

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Product code: R41222D

Page 4 of 4

(2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)
 Acute Daphnia toxicity EC50: >0.8 mg/l/24h species: Daphnia magna
 (2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)
 Algae toxicity: EC50: 4 mg/l/72h species: Scenedesmus subspicatus
 (2-benzyl-2-dimethylamino-4-morpholinobutyrophenone)

Persistence and degradability

Not easily bio-degradable (according to OECD-criteria).

Further information

Do not allow uncontrolled leakage of product into the environment.

13. Disposal considerations

Advice on disposal

Appropriate disposal / Product: Remove according to the regulations.
 Contaminated packaging: Cleaned containers may be recycled.

14. Transport information

Other applicable information

Not a hazardous material with respect to these transportation regulations.

15. Regulatory information

Labelling

R phrases

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

16. Other information

Full text of R-phrases referred to under sections 2 and 3

50 Very toxic to aquatic organisms.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 53 May cause long-term adverse effects in the aquatic environment.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)