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## SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### Product information

Trade name :    **MD-22 Part A**  
Use :            Binder for coating materials  
Company:        SIA «WMT Baltic»  
                    166b A. Deglava str., Riga, LV-1021  
                    VAT Reg. Nr. LV40003400148  
                    Tel.: 67 800 830, 67 800 833  
                    Fax: 67 800 831, 67 800 832  
                    Bank: AS «SWEDBANK»  
                    Nor. kots: LV15 HABA 0551 0073 03071  
                    S.W.I.F.T: HABALV22  
                    e-mail: office@wmt.lv  
                    http://www.wmt.lv

### 2. HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

**Classification (1272/2008/CE)**  
Eye irritation, Category 2(H319)

**Classification (2006/121/EC,1999/45/EC)**  
No classification according to EC Directives 2006/121/EC or 1999/45/EC.

#### Labelling(1272/2008/CE)



Warning

#### Hazard statements

H319 Causes serious eye irritation.

#### Precautionary statements:

P280 Wear protective gloves/ 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.

#### Labelling(2006/121/EC,1999/45/EC):

No labeling is required for this material by the Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4), in accordance with EC Directives

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Type of products:** Mixture

polyester polyol

#### Hazardous components

2,2,4-Trimethylpentane-1,3-diol  
Concentration [wt.-%]: ca. 18  
CAS-No.: 144-19-4  
Classification (1272/2008/CE): Eye Irrit. 2 H319  
Classification (67/548/EEC): Xi R36

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2-Butyl-2-ethyl-propanediol  
Concentration [wt.-%]: ca. 16  
EC-No.: 204-111-7  
CAS-No.: 115-84-4  
Classification (1272/2008/CE): Eye Irrit. 2 H319  
No classification according to EC Directives 2006/121/EC or 1999/45/EC.

### 4. FIRST AID MEASURES

#### Description of first aid measures

**General advice:** Take off all contaminated clothing immediately.

**If inhaled:** Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required.

**In case of skin contact:** In case of skin contact wash affected areas thoroughly with soap and plenty of water. Consult a doctor in the event of a skin reaction.

**In case of eye contact:** Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist.

**If swallowed:** DO NOT induce the patient to vomit, medical advice is required.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Carbon dioxide (CO<sub>2</sub>), Foam, extinguishing powder, in cases of larger fires, water spray should be used.

**Unsuitable extinguishing media:** High volume water jet

**Special hazards arising from the substance or mixture:** Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

**Advice for fire-fighters:** Firemen must wear self-contained breathing apparatus. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Put on protective equipment (see section 8). Keep away from sources of ignition. Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

**Environment related measures:** Do not allow to escape into waterways, wastewater or soil.

**Methods and material for containment and cleaning up:** Take up with absorbent for chemicals or, if necessary with dry sand and store in closed containers.

**Reference to other sections:** For further disposal measures see section 13.

### 7. HANDLING AND STORAGE

#### Precautions for safe handling:

Provide sufficient air exchange and/or exhaust in work rooms.

Provided good ventilation and/or local exhaust systems are used, the Workplace Exposure Limit(s) stated in section 8 should not be exceeded.

Explosion protection required.

The personal protective measures described in Chapter 8 must be observed. The precautions required in the handling of solvents must be taken. Avoid contact with skin and eyes and the inhalation of vapor.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at the end of workday. Keep working clothes separately. Change contaminated or soaked clothing.

#### Conditions for safe storage, including any incompatibilities:

Keep container dry and tightly closed in a cool and well ventilated place. Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet.

Storage class (TRGS 510): 10: Combustible liquids

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

UK Workplace Exposure Limits (WEL), per EH40 document (Health & Safety Executive). If no UK value exists, EU exposure limits given where available.

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### Control parameters

No information on Exposure Limit Values necessary according to EC directive 2006/121/EG

### Exposure controls

#### Respiratory protection:

Respiratory protection required in insufficiently ventilated working areas and during spraying.

#### Hand protection:

Protective gloves are recommended.

Conditionally suitable materials for protective gloves; EN 374:

Nitrile rubber - NBR ( $\geq 0.35$  mm)

Breakthrough time not tested; dispose of immediately after contamination.

#### Eye protection:

Wear eye/face protection.

#### Skin and body protection:

Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid	
Colour:	nearly colourless	
Odour:	almost odourless	
Odour Threshold:	not established	
pH:	not applicable	
Pour point:	ca. $-16$ °C	ISO 3016
Boiling point/boiling range:	ca. $242$ °C at 1,013 hPa	
Flash point:	ca. $131$ °C	DIN EN 22719
Evaporation rate:	not established	
Flammability (solid, gas):	not applicable	
Burning number:	not applicable	
Vapour pressure:	$< 110$ kPa at $50$ °C	
Vapour density:	not established	
Density:	ca. $1.05$ g/cm <sup>3</sup> at $20$ °C	DIN EN ISO 2811
Miscibility with water:	immiscible at $15$ °C	
Surface tension:	not established	
Partition coefficient (n-octanol/water):	not established	
Auto-ignition temperature:	not applicable	
Ignition temperature:	ca. $345$ °C	DIN 51794
Decomposition temperature:	not established	
Viscosity, dynamic:	ca. $1,900$ mPa.s at $23$ °C	DIN EN ISO 3219/A.3
Explosive properties:	not established	
Dust explosion class:	not applicable	
Oxidising properties:	not established	
Other information:	The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.	

## 10. STABILITY AND REACTIVITY

**Hazardous decomposition products:** No hazardous decomposition products when stored and handled correctly.

## 11. TOXICOLOGICAL INFORMATION

Please find below the toxicological data available to us for the components.

### Information on toxicological effects

#### Acute toxicity, oral:

Polyester polyol

LD50 rat:  $> 2,000$  mg/kg

Method: Directive 67/548/EEC, Annex V, B.1.

Studies of a comparable product.

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2,2,4-Trimethylpentane-1,3-diol  
LD50 rat: 3,730 mg/kg

2-Butyl-2-ethyl-propanediol  
LD50 rat: 2,900 mg/kg

### Acute toxicity, dermal:

2,2,4-Trimethylpentane-1,3-diol  
LD50 rabbit: > 5,000 mg/kg

2-Butyl-2-ethyl-propanediol  
LD50 rabbit: 3,810 mg/kg

### Acute toxicity, inhalation:

2,2,4-Trimethylpentane-1,3-diol  
LC50 rat: > 3.3 mg/l, 6 h

Assessment: The substance or mixture has no acute inhalation toxicity

### Primary skin irritation:

Polyester polyol  
Species: rabbit  
Result: slight irritant  
Classification: No skin irritation  
Studies of a comparable product.

2,2,4-Trimethylpentane-1,3-diol  
Species: rabbit  
Result: slight irritant  
Classification: No skin irritation

2-Butyl-2-ethyl-propanediol  
Species: rabbit  
Result: non-irritant  
Classification: No skin irritation

### Primary mucosae irritation:

Polyester polyol  
Species: rabbit  
Result: slight irritant  
Classification: No eye irritation  
Studies of a comparable product.

2,2,4-Trimethylpentane-1,3-diol  
Species: rabbit  
Result: irritating  
Classification: Causes serious eye irritation.

2-Butyl-2-ethyl-propanediol  
Species: rabbit  
Result: slight irritant (Classification 67/548/EEC) / irritating (Classification 1272/2008/CE)  
Method: Directive 67/548/EEC, Annex V, B.5.  
Evaluation according to CLP-Regulation (EG) 1272/2008.

### Sensitisation:

Polyester polyol  
Skin sensitization (local lymph node assay (LLNA)):  
Species: mouse

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Result: negative  
Classification: Does not cause skin sensitization.  
Method: OECD Test Guideline 429  
Studies of a comparable product.

2,2,4-Trimethylpentane-1,3-diol  
Skin sensitisation:  
Species: guinea pig  
Result: negative  
Classification: Does not cause skin sensitization.

2-Butyl-2-ethyl-propanediol  
Skin sensitisation according to Magnusson/Kligmann (maximizing test):  
Species: guinea pig  
Result: negative  
Classification: Does not cause skin sensitization.

**Genotoxicity in vitro:**  
Polyester polyol  
Test type: Salmonella/microsome test (Ames test)  
Result: No indication of mutagenic effects.  
Method: OECD Test Guideline 471  
Studies of a comparable product.

**CMR Assessment:**  
2-Butyl-2-ethyl-propanediol  
Mutagenicity: Not mutagenic in Ames Test.

## 12. ECOLOGICAL INFORMATION

Please find below the ecotoxicological data available to us for the components.

### Toxicity

#### Acute Fish toxicity:

Polyester polyol  
LC50 > 100 mg/l  
Species: Danio rerio (zebra fish)  
Exposure duration: 96 h  
Studies of a comparable product.

2,2,4-Trimethylpentane-1,3-diol  
LC50 837 mg/l  
Species: illy fish (*Oryzias latipes*)  
Exposure duration: 48 h

2-Butyl-2-ethyl-propanediol  
LC50 > 100 mg/l  
Species: *Oncorhynchus mykiss* (rainbow trout)  
Exposure duration: 96 h

#### Acute toxicity for daphnia:

Polyester polyol  
EC50 > 100 mg/l  
Species: *Daphnia magna* (Water flea)  
Exposure duration: 48 h  
Studies of a comparable product.

2,2,4-Trimethylpentane-1,3-diol

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EC50 > 109 mg/l  
Species: *Daphnia magna* (Water flea)  
Exposure duration: 48 h

2-Butyl-2-ethyl-propanediol  
EC50 > 95 mg/l  
Species: *Daphnia*  
Exposure duration: 48 h

### Acute toxicity for algae:

2,2,4-Trimethylpentane-1,3-diol  
ErC50 > 110 mg/l  
Species: *Pseudokirchneriella subcapitata* (green algae)  
Exposure duration: 72 h

2-Butyl-2-ethyl-propanediol  
ErC50 > 95 mg/l  
Species: *Scenedesmus capricornutum* (fresh water algae)  
Exposure duration: 72 h  
Method: OECD Test Guideline 201

### Acute bacterial toxicity:

Polyester polyol  
EC50 > 1,000 mg/l  
Species: activated sludge  
Method: OECD Test Guideline 209  
Studies of a comparable product.

### Persistence and degradability

#### Biodegradability:

Polyester polyol  
Biodegradation: < 60 %, 28 d, i.e. not readily degradable  
Method: OECD Test Guideline 301 F  
Studies of a comparable product.

2-Butyl-2-ethyl-propanediol  
Biodegradation: 7 %, 28 d, i.e. not readily degradable  
Method: OECD Test Guideline 301 A

### Bioaccumulative potential

#### Theoretical oxygen demand (ThOD):

2,2,4-Trimethylpentane-1,3-diol  
ThBOD value: 2,520 mg/g

#### Partition coefficient (n-octanol/water):

2,2,4-Trimethylpentane-1,3-diol

log Pow: 1.24  
2-Butyl-2-ethyl-propanediol

log Pow: 2.2 at: 25 °C

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

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### Waste treatment methods

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

None disposal into waste water.

## 14. TRANSPORT INFORMATION

**ADR/RID** Not dangerous goods

**ADN** Not dangerous goods

This classification data does not apply to transportation by tanker. If required, additional information can be requested from the manufacturer.

**IATA** Not dangerous goods

**IMDG** Not dangerous goods

Special precautions for user : Not dangerous cargo.

Keep dry.

Keep separated from foodstuffs.

## 15. REGULATORY INFORMATION

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

**Water contaminating class (Germany):** 1 slightly water endangering

(in accordance with Annex 4 to the Directive on Water-Hazardous Substances)

Any national regulations for the handling of solvents and hazardous substances must be observed.

## 16. OTHER INFORMATION

**Full text of hazardous (H) warnings referred to under sections 2 and 3 of the CLP classification (1272/2008/CE).**

H319 Causes serious eye irritation.

**Full text of R-phrases referred to under sections 2 and 3 of the EU classification (67/548/EEC, 1999/45/EC).**

R36 Irritating to eyes.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

### Further information

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.