

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**e-shell 200**

Print date: 24.06.2014

Product code: 15001XX-15002XX

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

e-shell 200

**Further trade names**

e-shell 200 pink, e-shell 201 tan, e-shell 202 mocca, e-shell 203 beige, e-shell 204 cocoa, e-shell 205 brown

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

light curing resin for hearing aid devices

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

Company name:	Deltamed GmbH	
Street:	Raiffeisenstr. 8a	
Place:	D-61169 Friedberg	
Telephone:	+49 6031 7283-0	Telefax: +49 6031 7283-29
e-mail:	info@deltamed.de	
Internet:	www.deltamed.de	
Responsible Department:	F&E	
	Telefax +49 6031 7283-29	

**1.4. Emergency telephone****number:** Giftinformationszentrum Universitätsklinikum Mainz

Telefon +49 6131 19240

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Indications of danger: Xi - Irritant

R phrases:

Irritating to eyes, respiratory system and skin.

May cause sensitisation by skin contact.

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

**GHS classification**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory/skin sensitization: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause respiratory irritation.

Harmful to aquatic life with long lasting effects.

**2.2. Label elements****Hazardous components which must be listed on the label**

Neopentyl glycol propoxylate diacrylate

phosphine oxide

Signal word: Warning

Pictograms: GHS07

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**Hazard statements**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye 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.
P302+P352	IF ON SKIN: Wash with Water and soap.
P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local regulation.

**2.3. Other hazards**

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
	7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate	60 - 80 %
72869-86-4	R52-53	
	Aquatic Chronic 3; H412	
	Neopentyl glycol propoxylate diacrylate	20 - 40 %
84170-74-1	Xi - Irritant R36/37/38-43	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335	
	phosphine oxide	< 3 %
	Xi - Irritant R43-52-53	
	Skin Sens. 1, Aquatic Chronic 4; H317 H413	

Full text of R and H phrases: see Section 16.

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

Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours. Take off all contaminated clothing immediately.

**After inhalation**

Provide fresh air. Medical treatment necessary.

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**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.

**After contact with eyes**

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

**After ingestion**

Do NOT induce vomiting. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Foam. Extinguishing powder Carbon dioxide

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Carbon monoxide. Carbon dioxide Hazardous decomposition products

**5.3. Advice for firefighters**

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

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Larger quantities: Take up mechanically (by pumping). Smaller quantities and/or residues: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

In the event of fire, cool the endangered containers with water. Keep away from sources of ignition --- No smoking. Take precautionary measures against static discharges. When heated above the flash

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point and/or during spraying (atomizing), ignitable mixtures may form in air.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Protect from the action of light. Keep only in the original container at a temperature between 5 -30 °C.

Can polymerize with intense heat release. Keep container tightly closed.

**Advice on storage compatibility**

No special measures are necessary.

**7.3. Specific end use(s)**

light curing resin for hearing aid devices

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

Do not breathe gas/fumes/vapour/spray.

**Protective and hygiene measures**

It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

tightly fitting goggles

**Hand protection**

butyl rubber gloves (0.7 mm), Break through time ca. 60 min (EN 374).Gloves should be replaced regularly, especially after extended contact with the product. For each work-place a suitable glove type has to be selected.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Breathing apparatus in case of high concentrations, short term: filter appliance, filter A In case of inadequate ventilation wear respiratory protection.

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

Physical state:	liquid
Colour:	various, depending on coloration
Odour:	characteristic

**Test method**

pH-Value: not determined

**Changes in the physical state**

Melting point: not determined

Initial boiling point and boiling range: not determined

Flash point: &gt; 150 °C

**Flammability**

Solid: not applicable

Gas: not applicable

Lower explosion limits: not determined

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Upper explosion limits: not determined

**Auto-ignition temperature**

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Vapour pressure: not determined

Density: not determined

Water solubility: insoluble

**Solubility in other solvents**

The substance is not soluble in water.

Partition coefficient: not determined

Viscosity / dynamic:  
(at 20 °C) 1000 - 1500 mPa·s

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

**10.4. Conditions to avoid**Protect from the action of light. Keep only in the original container at a temperature between 5 -30 °C.  
Can polymerize with intense heat release.**10.5. Incompatible materials**

Oxidising agent, Reducing agent, Heavy metals, acids, Alkali (lye)

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
72869-86-4	7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate				
	oral	LD50	>2000 mg/kg	Rat	OECD 401
	phosphine oxide				
	oral	LD50	> 2000 mg/kg	Rat	
	dermal	LD50	> 2000 mg/kg	Rat	

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**Additional information on tests**

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

**Further information**

Product has not been tested. The statement is derived from the properties of the components.

**SECTION 12: Ecological information****12.1. Toxicity**

Aquatic toxicity: The classification criteria for this hazard class are not met by definition.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
72869-86-4	7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate					
	Acute fish toxicity	LC50	10,1 mg/l	96 h	Brachydanio rerio (zebra-fish)	OECD 203
	phosphine oxide					
	Acute fish toxicity	LC50	(> 0,09) mg/l	96 h	Brachydanio rerio (zebra-fish)	
	Acute crustacea toxicity	EC50 mg/l	(> 1,175)	48 h	Daphnia magna (Big water flea)	

**12.2. Persistence and degradability**

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
72869-86-4	7,7,9-Trimethyl-4,13-dioxo-3,14-dioxo-5,12-diaza-hexadecan-1,16-diol dimethacrylate			
	Biodegradation	22 %	28	OECD 301 F

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.

**Further information**

Do not allow uncontrolled discharge of product into the environment. Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues  
Classified as hazardous waste.

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**Waste disposal number of used product**

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

070208 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of plastics, synthetic rubber and man-made fibres; other still bottoms and reaction residues  
Classified as hazardous waste.

**Contaminated packaging**

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)****Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

**Marine transport (IMDG)****Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO)****Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

not applicable

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

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

**15.2. Chemical safety assessment**

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

**SECTION 16: Other information****Changes**

reason of revision: classification according CLP / GHS.

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Full text of R phrases referred to under Sections 2 and 3**

- 36/37/38 Irritating to eyes, respiratory system and skin.  
43 May cause sensitisation by skin contact.  
52 Harmful 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.

**Full text of H statements referred to under Sections 2 and 3**

- H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.  
H413 May cause long lasting harmful effects to aquatic life.

**Further Information**

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.

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