according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 1 of 17

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LuxaCore Z Dual_Catalyst Paste

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

Uses advised against

pregnant or breastfeeding people should not work with hazardous substances

1.3. Details of the supplier of the safety data sheet

Company name:	DMG Chemisch-Pharmazeutische	Fabrik GmbH	
Street:	Elbgaustraße 248		
Place:	D-22547 Hamburg		
Telephone:	+49. (0) 40. 84006-0	Telefax: +49. (0) 40. 84006-222	
E-mail:	info@dmg-dental.com		
Internet:	www.dmg-dental.com		

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

Danger

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers)

1,12-Dodecane Dimethacrylate Methacryloyloxyethyl Maleate benzoyl peroxide

Signal word:

Pictograms:



Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P280	Wear protective gloves and eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.

according to Regulation (EC) No 1907/2006

	LuxaCore Z Dual_Catalyst Paste						
Revision date:	Product code: G000034	Page 2 of 17					
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.						
P310	Immediately call a POISON CENTER/doctor.						
P501	Dispose of contents/container to an appropriate recycling or disposal facility.						
Special labelling of c	ertain mixtures						
	60 - < 65 per cent of the mixture consists of component(s) of unknown acute toxicity (dermal).						
	60 - < 65 per cent of the mixture consists of component(s) of unknown acute toxicity (inhalation).						
	Contains 5 - < 10 % of components with unknown hazards to the aquatic environment.						
2.3. Other hazards							
No information av	No information available.						

SECTION 3: Composition/information on ingredients

3.2. Mixtures

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 3 of 17

Relevant ingredients

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification (Regulation (EC)	No 1272/2008)	·	
72869-86-4	7,7,9-(resp. 7,9,9-)Trimethyl-4,1 dimethacrylate (mixture of isome		a-hexadecane-1,16-diol	5 - < 10 %
	276-957-5		01-2120751202-68	
	Skin Sens. 1B, Aquatic Chronic	2; H317 H411	·	
72829-09-5	1,12-Dodecane Dimethacrylate			5 - < 10 %
	276-900-4		01-2120756306-53	
	Skin Sens. 1B, Aquatic Acute 1,	Aquatic Chronic 1; H317 H40	00 H410	
6606-59-3	1,6-hexanediol dimethacrylate			5 - < 10 %
	229-551-7		01-2120760621-59	
	Aquatic Chronic 3; H412			
51978-15-5	Methacryloyloxyethyl Maleate			1 - < 5 %
	257-569-5			
	Skin Corr. 1B, Skin Sens. 1; H3			
94-36-0	benzoyl peroxide	< 1 %		
	202-327-6	617-008-00-0		
	Org. Perox. B, Eye Irrit. 2, Skin H400 H410			
7681-49-4	sodium fluoride	< 1 %		
	231-667-8	009-004-00-7	01-2119539420-47	
	Acute Tox. 3, Skin Irrit. 2, Eye Ir			
79-41-4	methacrylic acid; 2-methylprope	noic acid		< 1 %
	201-204-4	607-088-00-5		
	Acute Tox. 3, Acute Tox. 4, Acu H302 H314 H318 H335			
868-77-9	2-hydroxyethyl methacrylate			< 1 %
	212-782-2	607-124-00-X	01-2119490169-29	
	Skin Irrit. 2, Eye Irrit. 2, Skin Se			
80-62-6	methyl methacrylate; methyl 2-n	< 0.1 %		
	201-297-1	607-035-00-6	01-2119452498-28	
	Flam. Liq. 2, Skin Irrit. 2, Skin S			

Full text of H and EUH statements: see section 16.

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 4 of 17

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Cond	c. Limits, M-factors and ATE	
72869-86-4	276-957-5	7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers)	5 - < 10 %
	oral: LD50 =	>5000 mg/kg	
72829-09-5	276-900-4	1,12-Dodecane Dimethacrylate	5 - < 10 %
		>2000 mg/kg Aquatic Acute 1; H400: M=10 nic 1; H410: M=1	
94-36-0	202-327-6	benzoyl peroxide	< 1 %
		>2000 mg/kg Aquatic Acute 1; H400: M=10 nic 1; H410: M=10	
7681-49-4	231-667-8	sodium fluoride	< 1 %
	dermal: LD50	0 = >2000 mg/kg; oral: LD50 = 148,5 mg/kg	
79-41-4	201-204-4	methacrylic acid; 2-methylpropenoic acid	< 1 %
		TE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 ng/kg; oral: LD50 = 1320 mg/kg STOT SE 3; H335: >= 1 - 100	
868-77-9	212-782-2	2-hydroxyethyl methacrylate	< 1 %
	dermal: LD50	0 = >5000 mg/kg; oral: LD50 = 5564 mg/kg	
80-62-6	201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	< 0.1 %
	inhalation: L0 mg/kg	C50 = 29,8 mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000	

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

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

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Do NOT induce vomiting.

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

Water fog. Extinguishing powder. Sand. Foam. Carbon dioxide (CO2).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 5 of 17

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

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

General advice

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

For cleaning up

Take up mechanically. 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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid dust formation. Do not breathe dust.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Hints on joint storage

No special measures are necessary.

Further information on storage conditions

Substances sensitive to light.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 6 of 17

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
128-37-0	2,6-Ditertiary-butyl-para-cresol	-	2		TWA (8 h)	
94-36-0	Benzoyl peroxid (Dibenzoyl peroxide)	-	5		TWA (8 h)	
79-41-4	Methacrylic acid	20	70		TWA (8 h)	
		40	140		STEL (15 min)	
80-62-6	Methyl methacrylate	50	-		TWA (8 h)	
		100	-		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
72869-86-4	72869-86-4 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers)					
Worker DNEL	, long-term	inhalation	systemic	3,3 mg/m³		
Worker DNEL	, long-term	dermal	systemic	1,3 mg/kg bw/day		
6606-59-3	1,6-hexanediol dimethacrylate					
Worker DNEL	, long-term	inhalation	systemic	14,5 mg/m³		
Worker DNEL	, long-term	dermal	systemic	4,2 mg/kg bw/day		
79-41-4	methacrylic acid; 2-methylpropenoic acid					
Worker DNEL	, long-term	dermal	systemic	4,25 mg/kg bw/day		
Worker DNEL	, long-term	inhalation	systemic	29,6 mg/m ³		
868-77-9	2-hydroxyethyl methacrylate					
Worker DNEL	, long-term	inhalation	systemic	4,9 mg/m³		
Worker DNEL	, long-term	dermal	systemic	1,3 mg/kg bw/day		
128-37-0	2,6-Di-tert-butyl-4-methylphenol					
Worker DNEL	, long-term	inhalation	systemic	3,5 mg/m³		
Worker DNEL	, long-term	dermal	systemic	0,5 mg/kg bw/day		
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methy	yl 2-methylpropenoate				
Worker DNEL	, long-term	inhalation	local	208 mg/m ³		
Worker DNEL, long-term derma			systemic	13,7 mg/kg bw/day		
Worker DNEL, long-term dermal local 1,5				1,5 mg/cm ²		
Worker DNEL	, acute	inhalation	local	416 mg/m ³		
Worker DNEL	, long-term	inhalation	systemic	348,4 mg/m ³		
Worker DNEL	, acute	dermal	local	1,5 mg/cm ²		

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 7 of 17

PNEC values

CAS No Substance				
Environmental compartment	Value			
72869-86-4 7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadeca isomers)	ane-1,16-diol dimethacrylate (mixture of			
Freshwater	0,01 mg/l			
Marine water	0,001 mg/l			
Freshwater sediment	4,56 mg/kg			
Marine sediment	0,456 mg/kg			
Micro-organisms in sewage treatment plants (STP)	3,61 mg/l			
Soil	0,91 mg/kg			
6606-59-3 1,6-hexanediol dimethacrylate				
Freshwater	0,00488 mg/l			
Marine water	0,000488 mg/l			
Freshwater sediment	0,262 mg/kg			
Marine sediment	0,026 mg/kg			
Micro-organisms in sewage treatment plants (STP)	800 mg/l			
Soil	0,05 mg/kg			
79-41-4 methacrylic acid; 2-methylpropenoic acid				
Freshwater	0,82 mg/l			
Freshwater (intermittent releases)	0,82 mg/l			
Marine water	0,82 mg/l			
Micro-organisms in sewage treatment plants (STP)	10 mg/l			
Soil	1,2 mg/kg			
868-77-9 2-hydroxyethyl methacrylate				
Freshwater	0,482 mg/l			
Freshwater sediment	3,79 mg/kg			
Micro-organisms in sewage treatment plants (STP)	10 mg/l			
Soil	0,476 mg/kg			
128-37-0 2,6-Di-tert-butyl-4-methylphenol				
Freshwater	0,000199 mg/l			
Freshwater (intermittent releases)	0,00199 mg/l			
Marine water	0,000199 mg/l			
Freshwater sediment	0,0996 mg/kg			
Marine sediment	0,00996 mg/kg			
Soil	0,04769 mg/kg			
30-62-6 methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpro	ppenoate			
Freshwater	0,94 mg/l			
Marine water	0,094 mg/l			
Freshwater sediment 10				
Marine sediment	10,2 mg/kg			
Micro-organisms in sewage treatment plants (STP)	10 mg/l			
Soil	1,48 mg/kg			

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 8 of 17

8.2. Exposure controls





Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Use of protective clothing.

Respiratory protection

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:	Paste	
	Colour:	off-white	
	Odour:	characteristic	
	Melting point/freezing point:		not determined
	Boiling point or initial boiling point and		not determined
	boiling range:		
	Flammability:		not determined
	Lower explosion limits:		not determined
	Upper explosion limits:		not determined
	Flash point:		not applicable
	Auto-ignition temperature:		not determined
	Decomposition temperature:		not determined
	pH-Value:		not determined
	Water solubility:		virtually insoluble
	Solubility in other solvents		
	not determined		
	Partition coefficient n-octanol/water:		not determined
	Vapour pressure:		not determined
	Density:		not determined
	Relative vapour density:		not determined
9	2. Other information		
	Information with regard to physical haz	ard classes	
	Explosive properties		
	The product is not: Explosive.		
	Oxidizing properties		
	The product is not evidicing		

The product is not: oxidising.

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste					
Revision date:	Product code: G000034	Page 9 of 17			
Other safety characteristics					
Evaporation rate:	not determined				
Solid content:	not determined				
SECTION 10: Stability and reactive	vity				
10.1. Reactivity					
No hazardous reaction when ha	andled 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

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

ATEmix calculated

ATE (oral) 32213 mg/kg; ATE (dermal) 46432 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 10 of 17

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
72869-86-4	7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa isomers)			a-5,12-diaza-hexadecane-	1,16-diol dimethacrylate (i	mixture of
	oral	LD50 > mg/kg	•5000	Rat	supplier SDS	OECD 401
72829-09-5	1,12-Dodecane Dimetha	ocrylate		_		
	oral	LD50 > mg/kg	2000	Rat	supplier SDS/ ECHA	
94-36-0	benzoyl peroxide			_		
	oral	LD50 > mg/kg	2000	Mouse	ECHA	OECD 401
7681-49-4	sodium fluoride					
	oral	LD50 1 mg/kg	48,5	Rat	supplier SDS	
	dermal	LD50 > mg/kg	2000	Rat	ECHA	
79-41-4	methacrylic acid; 2-meth	ylpropenoic aci	d			
	oral	LD50 1 mg/kg	320	Rat	ECHA	OECD 401
	dermal	LD50 5 mg/kg	500-1000	Rat	ECHA	
	inhalation vapour		1 mg/l			
	inhalation dust/mist	ATE 1	,5 mg/l			
868-77-9	2-hydroxyethyl methacry	/late		I	I	I
	oral	LD50 5 mg/kg	5564	Rat	supplier SDS	
	dermal	LD50 > mg/kg	5000	Rabbit	supplier SDS	
80-62-6	methyl methacrylate; me	ethyl 2-methylpro	op-2-enoa	te; methyl 2-methylpropen	oate	
	oral	LD50 > mg/kg	•5000	Rat	supplier SDS	
	dermal	LD50 > mg/kg	•5000	Rabbit	supplier SDS	
	inhalation (4 h) vapour	LC50 2	29,8 mg/l	Rat	supplier SDS	

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (7,7,9-(resp.

7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers); 1,12-Dodecane Dimethacrylate; Methacryloyloxyethyl Maleate; benzoyl peroxide; 2-hydroxyethyl

methacrylate; methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

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

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 11 of 17

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 12 of 17

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
72829-09-5	1,12-Dodecane Dimetha	crylate		_				
	Acute algae toxicity	ErC50 mg/l	0,017	72 h	Pseudokirchneriella subcapitata	supplier SDS/ ECHA		
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna (Big water flea)	supplier SDS/ ECHA		
94-36-0	benzoyl peroxide							
	Acute fish toxicity	LC50 mg/l	0,06	96 h	Oncorhynchus mykiss (Rainbow trout)	ECHA		
	Acute algae toxicity	ErC50 mg/l	0,071		Pseudokirchneriella subcapitata	ECHA	OECD 201	
	Acute crustacea toxicity	EC50 mg/l	0,11	48 h	Daphnia magna (Big water flea)	ECHA		
7681-49-4	sodium fluoride							
	Acute fish toxicity	LC50	925 mg/l	96 h	Gambusia affinis (Mosquito fish)	supplier SDS		
	Acute algae toxicity	ErC50	850 mg/l	72 h	Desmodesmus subspicatus	supplier SDS		
	Acute crustacea toxicity	EC50	338 mg/l	48 h	Daphnia magna (Big water flea)	supplier SDS		
	Acute bacteria toxicity	EC50 mg/l()	2930	3 h	Activated sludge	supplier SDS		
79-41-4	methacrylic acid; 2-meth	ylpropenoic a	icid		-			
	Acute fish toxicity	LC50	85 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	ECHA		
	Acute algae toxicity	ErC50	45 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA		
	Fish toxicity	NOEC	10 mg/l	35 d	Danio rerio (zebrafish)	ECHA		
	Algae toxicity	NOEC	8,2 mg/l	3 d	Pseudokirchneriella subcapitata	ECHA		
	Crustacea toxicity	NOEC	53 mg/l	21 d	Daphnia magna (Big water flea)	ECHA		
868-77-9	2-hydroxyethyl methacrylate							
	Acute fish toxicity	LC50 mg/l	>100	96 h	Oryzias latipes (Ricefish)	supplier SDS		
	Acute algae toxicity	ErC50	836 mg/l	72 h	Selenastrum capricornutum	supplier SDS		
	Acute crustacea toxicity	EC50	380 mg/l	48 h	Daphnia magna (Big water flea)	supplier SDS	OECD 202	
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate							
	Acute fish toxicity	LC50 mg/l	>100	96 h		supplier SDS	OECD 203	
	Acute algae toxicity	ErC50	110 mg/l	72 h	Selenastrum capricornutum	ECHA		
	Fish toxicity	NOEC	9,4 mg/l			supplier SDS	OECD 210	
	Algae toxicity	NOEC mg/l	>110		Selenastrum capricornutum	supplier SDS	OECD 201	
	Crustacea toxicity	NOEC	37 mg/l		Daphnia magna (Big water flea)	supplier SDS	OECD 202	

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 13 of 17

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-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers)					
	OECD 301F	22%	28			
	Not readily biodegradable (according to OECD criteria)	Not readily biodegradable (according to OECD criteria)				
72829-09-5	1,12-Dodecane Dimethacrylate					
	OECD 301B	97,3%	28			
	Easily biodegradable (concerning to the criteria of the OE	CD)				
6606-59-3	1,6-hexanediol dimethacrylate					
	OECD 301F	91,1%	28			
	Easily biodegradable (concerning to the criteria of the OECD)					
79-41-4	methacrylic acid; 2-methylpropenoic acid					
	OECD 301D	86 %	28			
	Readily biodegradable (according to OECD criteria).					
868-77-9	2-hydroxyethyl methacrylate					
	OECD 301D	84	28			
	Easily biodegradable (concerning to the criteria of the OECD)					
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate					
	OECD 301C	94%	14			
	Readily biodegradable (according to OECD criteria).					

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
72869-86-4	7,7,9-(resp. 7,9,9-)Trimethyl-4,13-dioxo-3,14-dioxa-5,12-diaza-hexadecane-1,16-diol dimethacrylate (mixture of isomers)	3,39
72829-09-5	1,12-Dodecane Dimethacrylate	6,5
6606-59-3	1,6-hexanediol dimethacrylate	4,08
94-36-0	benzoyl peroxide	3,46
79-41-4	methacrylic acid; 2-methylpropenoic acid	0,93
868-77-9	2-hydroxyethyl methacrylate	0,42
80-62-6	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2-methylpropenoate	1,38

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. The product has not been tested.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 14 of 17

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

List of Wastes Code - residues/unused products

180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

Land transport (ADR/RID)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
	一
	AIIN
	9
Classification code:	M6
Special Provisions:	274 335 375 601
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
Hazard label:	9
	Å
	All
	9
Special Provisions:	274 335 969
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-F
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	UN 3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
14.3. Transport hazard class(es):	9
14.4. Packing group:	

according to Regulation (EC) No 1907/2006

	LuxaCore Z Dual_Catalyst Paste	
Revision date:	Product code: G000034	Page 15 of 1
Hazard label:	9	
	All),	
	e	
Special Provisions:	A97 A158 A197 A215	
Limited quantity Passenger:	30 kg G	
Passenger LQ:	Y964	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:	964	
IATA-max. quantity - Passenger:	450 L	
IATA-packing instructions - Cargo:	964	
IATA-max. quantity - Cargo:	450 L	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	Yes	
14.6. Special precautions for user		
No information available.	<u>o IMO instruments</u>	
No information available. I 4.7. Maritime transport in bulk according to not applicable	<u>o IMO instruments</u>	
No information available. 4.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information	o IMO instruments ations/legislation specific for the substance or mixture	
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information		
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII):		
No information available. I4.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information I5.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive		
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III):	ations/legislation specific for the substance or mixture	
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III): National regulatory information	ations/legislation specific for the substance or mixture E1 Hazardous to the Aquatic Environment	
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III):	ations/legislation specific for the substance or mixture E1 Hazardous to the Aquatic Environment Observe restrictions to employment for juveniles according to the	
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III): National regulatory information	ations/legislation specific for the substance or mixture E1 Hazardous to the Aquatic Environment	
No information available. 4.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 5.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III): National regulatory information Employment restrictions:	ations/legislation specific for the substance or mixture E1 Hazardous to the Aquatic Environment Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).	
No information available. 14.7. Maritime transport in bulk according to not applicable SECTION 15: Regulatory information 15.1. Safety, health and environmental regul EU regulatory information Restrictions on use (REACH, annex XVII): Entry 75 Information according to Directive 2012/18/EU (SEVESO III): National regulatory information Employment restrictions: Water hazard class (D):	ations/legislation specific for the substance or mixture E1 Hazardous to the Aquatic Environment Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). 3 - highly hazardous to water	

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste

Revision date:

Product code: G000034

Page 16 of 17

Abbreviations and acronyms

Org. Perox Flam. Lig: Flammable liquid Acute Tox: Acute toxicity Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage Eye Irrit: Eye irritation Skin Sens: Skin sensitisation STOT SE: Specific target organ toxicity - single exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard CLP: Classification, labelling and Packaging REACH: Registration, Evaluation and Authorization of Chemicals GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals **UN: United Nations** CAS: Chemical Abstracts Service DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate LC50: Lethal concentration, 50% LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50% EC50: Effective Concentration 50% ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration BCF: Bio-concentration factor PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Regulations concerning the international carriage of dangerous goods by rail MARPOL: International Convention for the Prevention of Marine Pollution from Ships IBC: Intermediate Bulk Container SVHC: Substance of Very High Concern For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

	· · · · · · · · · · · · · · · · · · ·
H225	Highly flammable liquid and vapour.
H241	Heating may cause a fire or explosion.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.

according to Regulation (EC) No 1907/2006

LuxaCore Z Dual_Catalyst Paste			
Revision date:	Product code: G000034	Page 17 of 17	
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		
H319	Causes serious eye irritation.		
H332	Harmful if inhaled.		
H335	May cause respiratory irritation.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
H411	Toxic to aquatic life with long lasting effects.		
H412	Harmful to aquatic life with long lasting effects.		
EUH032	Contact with acids liberates very toxic gas.		
Further Informatio	n		

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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