

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 1 of 8

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

1.1. Product identifier

MOIIN Nano Rigid Resin

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

Company name:	DMG Digital Enterprises SE	
Street:	Elbgaustrasse 248	
Place:	D-22547 Hamburg	
Telephone:	+49 40 84006-0	Telefax: +49 40 84006-222
e-mail:	info@dmg-digital.com	
Internet:	www.dmg-digital.com	
Responsible Department:	Quality Management	

Further Information

The substance does not require registration according to Regulation (EC) No 1907/2006 [REACH].

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Tri-ethylenglycol-dimethacrylate (TEDMA)

1,6-Hexanediol Dimethacrylate

Bis-GMA

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Signal word: Warning**Pictograms:**

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 2 of 8

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P280 Wear protective gloves and eye/face protection.
 P264 Wash hands thoroughly after handling.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)			10-20 %
	203-652-6		01-2119969287-21	
	Skin Sens. 1B; H317			
6606-59-3	1,6-Hexanediol Dimethacrylate			5-10 %
	229-551-7			
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H315 H319 H335			
1565-94-2	Bis-GMA			5-10 %
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, STOT SE 3; H315 H319 H317 H335			
7534-94-3	Isobornyl methacrylate			5-10 %
	231-403-1		02-1198865052-7	
	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 3; H315 H319 H335 H412			
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide			1-2 %
	278-355-8		01-2119972295-29	
	Repr. 2, Skin Sens. 1, Aquatic Chronic 2; H361f H317 H411			

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

After contact with skin

After contact with skin, wash immediately with: Water and soap.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Call a physician immediately.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 3 of 8

5.2. Special hazards arising from the substance or mixture

CO_x, NO_x

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed. Wear suitable protective clothing and gloves. Avoid contact with eyes.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.
Store only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
128-37-0	2,6-Di-tert-butyl-p-cresol	-	10		TWA (8 h)	WEL
13463-67-7	Titanium dioxide, total inhalable	-	10		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)			
Worker DNEL, long-term		inhalation	systemic	48,5 mg/m ³
Worker DNEL, long-term		dermal	systemic	13,9 mg/kg bw/day

PNEC values

CAS No	Substance	Value
	Environmental compartment	
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)	
Freshwater		0,164 mg/l
Marine water		0,0164 mg/l
Freshwater sediment		1,85 mg/kg
Marine sediment		0,185 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,274 mg/kg

8.2. Exposure controls

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 4 of 8



Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Protective and hygiene measures

When using do not eat or drink.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Tested protective gloves are to be worn: Suitable material: NBR (Nitrile rubber).

Respiratory protection

The following must be prevented: inhalation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
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
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
point of decomposition:	not determined estim.
Flash point:	> 93 °C
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Vapour pressure:	not determined
Density:	not determined
Water solubility: (at 20 °C)	not determined
Vapour density:	> 1

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

- Light. heat.
- Decomposition takes place from temperatures above: 200 °C
- Decomposition under formation of: Acrylate.

10.5. Incompatible materials

Keep away from strong acids, leachates, heavy metal salts and reducing materials.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 5 of 8

10.6. Hazardous decomposition products

In case of fire may be liberated: Gas / vapours, irritant. (Acrylate., pungent)

Further information

Substances sensitive to light.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD50: Rat 4018 mg/kg (ATEmix., calc.)

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Mouse		
	inhalation	Data lacking			
1565-94-2	Bis-GMA				
	oral	LD50 5000 mg/kg	Rat	literature value	
7534-94-3	Isobornyl methacrylate				
	oral	LD50 3100 mg/kg	Rat	SDS	
	dermal	LD50 3000 mg/kg	Rabbit	SDS	
	inhalation	Data lacking			
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	oral	LD50 > 5000 mg/kg	Rat	SDS	
	dermal	LD50 > 2000 mg/kg	Rat	SDS	
	inhalation	Data lacking			

Irritation and corrosivity

Frequently or prolonged contact with skin may cause dermal irritation.

Irritant effect on the eye:

Sensitising effects

May cause sensitization by skin contact.

Additional information on tests

Contains Methacrylic esters.: May produce an allergic reaction.

SECTION 12: Ecological information

12.1. Toxicity

Preparation not tested.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 6 of 8

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)					
	Acute fish toxicity	LC50 16,4 mg/l	96 h	pisc, indet.	OECD 203	
	Acute algae toxicity	ErC50 > 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD 201	
	Algae toxicity	NOEC 18,6 mg/l	3 d	Pseudokirchneriella subcapitata		
	Crustacea toxicity	NOEC 32 mg/l	21 d	daphnia magna		
7534-94-3	Isobornyl methacrylate					
	Acute fish toxicity	LC50 1,79 mg/l	96 h	Brachydanio rerio (zebra-fish)	SDS	OECD 203
	Acute algae toxicity	ErC50 2,28 mg/l	72 h	Pseudokirchneriella subcapitata	SDS	OECD 201
	Acute crustacea toxicity	EC50 2,57 mg/l	48 h	Daphnia magna (Big water flea)	SDS	OECD 202
	Crustacea toxicity	NOEC 0,233 mg/l	21 d	Daphnia magna (Big water flea)	SDS	OECD 211
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide					
	Acute fish toxicity	LC50 6,53 mg/l	96 h	Oryzias latipes (Ricefish)	SDS	
	Acute algae toxicity	ErC50 > 2,01 mg/l	72 h	Scenedesmus subspicatus	SDS	
	Acute crustacea toxicity	EC50 3,53 mg/l	48 h	Daphnia magna (Big water flea)	SDS	
	Acute bacteria toxicity	(> 1000 mg/l)	3 h	Activated sludge	SDS	

12.2. Persistence and degradability

Preparation not tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)			
	Biodegradation	85 %	28	OECD 301B
	Biodegradable.			
7534-94-3	Isobornyl methacrylate			
	Biodegradation	70 %	28	OECD 310
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

Preparation not tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
109-16-0	Tri-ethylenglycol-dimethacrylate (TEDMA)	<= 4
7534-94-3	Isobornyl methacrylate	5,09
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3,1

BCF

CAS No	Chemical name	BCF	Species	Source
7534-94-3	Isobornyl methacrylate	37	Brachydanio rerio (zebra-fish)	56 h

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 7 of 8

12.4. Mobility in soil

Preparation not tested.

12.5. Results of PBT and vPvB assessment

Preparation not tested.

12.6. Other adverse effects

Preparation not tested.

Further information

Do not allow to enter into surface water or drains. Leakage into the environment must be prevented.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Can be burnt together with household waste in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Paste: Carry out a burning of hazardous waste according to official regulations.

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

SECTION 14: Transport information

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Other applicable information

No dangerous good in sense of these transport regulations.

SECTION 15: Regulatory information

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

National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

SECTION 16: Other information

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 Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MOIIN Nano Rigid Resin

Revision date: 25.03.2020

Product code: ma2251

Page 8 of 8

H335	May cause respiratory irritation.
H361f	Suspected of damaging fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

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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.)