according to Regulation (EC) No 1907/2006

MOIIN High Temp

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

1.1. Product identifier

MOIIN High Temp

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 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

Contact person: A. Brunner

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

Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate

Tris (2-Hydroxyethyl) Isocyanurate Triacrylate

2-Propenoic acid, reaction products with pentaerythritol phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Signal word: Danger

Pictograms:







Hazard statements

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear protective gloves and eye/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P273 Avoid release to the environment.

2.3. Other hazards

Endocrine disrupting properties: 2,6-Di-tert-butyl-4-methylphenol.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No 1272/2008)				
42594-17-2	(octahydro-4,7-methano-1H-indene	diyl)bis(methylene) diacrylate		55 - < 60 %	
	255-901-3				
	Skin Sens. 1, Aquatic Chronic 2; H3	317 H411			
40220-08-4	Tris (2-Hydroxyethyl) Isocyanurate	Triacrylate		20 - < 25 %	
	254-843-6				
	Eye Dam. 1, Skin Sens. 1, Aquatic	Chronic 2; H318 H317 H411			
1245638-61-2	2-Propenoic acid, reaction productswith pentaerythritol				
	629-850-6		01-2119490003-49		
	Acute Tox. 4, Skin Irrit. 2, Eye Dam H411	. 1, Skin Sens. 1, Aquatic Chronic 2;	H302 H315 H318 H317		
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			1 - < 5 %	
	423-340-5	015-189-00-5			
	Skin Sens. 1A, Aquatic Chronic 4; I	H317 H413			
128-37-0	2,6-Di-tert-butyl-4-methylphenol			< 1 %	
	204-881-4		01-2119565113-46		
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410				

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc.	Limits, M-factors and ATE	
40220-08-4	254-843-6	Tris (2-Hydroxyethyl) Isocyanurate Triacrylate	20 - < 25 %
	oral: LD50 = >:	2000 mg/kg	
1245638-61- 2	629-850-6	2-Propenoic acid, reaction productswith pentaerythritol	1 - < 5 %
	dermal: LD50 =	= >2000 mg/kg; oral: LD50 = 540 mg/kg	
162881-26-7	423-340-5	423-340-5 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	
	dermal: LD50 =	= > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
128-37-0	204-881-4	2,6-Di-tert-butyl-4-methylphenol	< 1 %
	dermal: LD50 = M chron.; H410	= > 2000 mg/kg; oral: LD50 = > 2930 mg/kg M acute; H400: M=1 : M=1	

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.

according to Regulation (EC) No 1907/2006

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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.

5.2. Special hazards arising from the substance or mixture

COx, NOx

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

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

Other information

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.

Advice on general occupational hygiene

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 in a cool, well-ventilated place.

Store only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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)	

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DNEL/DMEL values

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CAS No	Substance			
DNEL type		Exposure route	Effect	Value
40220-08-4	Tris (2-Hydroxyethyl) Isocyanurate Triacrylate			
Worker DNEL,	long-term	inhalation	systemic	1,65 mg/m³
Worker DNEL,	long-term	dermal	systemic	2,3 mg/kg bw/day
1245638-61- 2	2-Propenoic acid, reaction productswith pentaerythritol			
Worker DNEL,	long-term	inhalation	systemic	7,35 mg/m³
Worker DNEL,	long-term	dermal	systemic	1,04 mg/kg bw/day
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			
Worker DNEL,	long-term	inhalation	systemic	21 mg/m³
Worker DNEL,	long-term	dermal	systemic	3,3 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

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PNEC values

CAS No	Substance	
Environmenta	l compartment	Value
40220-08-4	Tris (2-Hydroxyethyl) Isocyanurate Triacrylate	
Freshwater		0,00943 mg/l
Freshwater (ir	ntermittent releases)	0,0943 mg/l
Marine water		0,000943 mg/l
Freshwater se	ediment	0,62 mg/kg
Marine sedim	ent	0,062 mg/kg
Micro-organis	ms in sewage treatment plants (STP)	10 mg/l
Soil		0,118 mg/kg
1245638-61- 2	2-Propenoic acid, reaction productswith pentaerythritol	
Freshwater		0,0032 mg/l
Freshwater (ir	ntermittent releases)	0,032 mg/l
Marine water		0,00032 mg/l
Freshwater se	ediment	0,1512 mg/kg
Marine sedim	ent	0,01512 mg/kg
Micro-organis	ms in sewage treatment plants (STP)	10 mg/l
Soil		0,0284 mg/kg
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	
Freshwater		0,001 mg/l
Freshwater (ir	ntermittent releases)	0,001 mg/l
Marine water		0,001 mg/l
Freshwater se	ediment	0,712 mg/kg
Marine sedim	ent	0,712 mg/kg
Micro-organis	ms in sewage treatment plants (STP)	1 mg/l
Soil		20 mg/kg
128-37-0	2,6-Di-tert-butyl-4-methylphenol	
Freshwater		0,000199 mg/l
Freshwater (ir	ntermittent releases)	0,00199 mg/l
Marine water		0,000199 mg/l
Freshwater se	ediment	0,0996 mg/kg
Marine sedim	ent	0,00996 mg/kg
Soil		0,04769 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation of the storage area.

Individual protection measures, such as personal protective equipment

according to Regulation (EC) No 1907/2006

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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: yellow
Odour: like: ester

Test method

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

boiling range:

Sublimation point:

Softening point:

not determined

not determined

not determined

point of decomposition: > 200 °C estim.

Flash point: > 100 °C

Lower explosion limits: not determined

Upper explosion limits: not determined

pH-Value: not determined

Water solubility: not determined

(at 20 °C)

Vapour pressure: not determined

Density (at 20 °C):

Relative vapour density:

> 1

1.1 g/cm³ calc.

SECTION 10: Stability and reactivity

10.4. Conditions to avoid

Light. heat.

Decompostion 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.

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 hazard classes as defined in Regulation (EC) No 1272/2008

according to Regulation (EC) No 1907/2006

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Acute toxicity

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

ATEmix (oral, rat): > 775 mg/kg

CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
40220-08-4	Tris (2-Hydroxyethyl)	Isocyanurate ⁻	Triacrylate					
	oral	LD50 mg/kg	>2000	Rat	ECHA	OECD 423		
1245638-61- 2	2-Propenoic acid, rea	action products	with pentaery	ythritol				
	oral	LD50 mg/kg	540	Rat	supplier SDS	OECD 401		
	dermal	LD50 mg/kg	>2000	Rabbit	supplier SDS	OECD 402		
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide							
	oral	LD50 mg/kg	> 2000	Rat	supplier SDS			
	dermal	LD50 mg/kg	> 2000	Rat	supplier SDS			
128-37-0	2,6-Di-tert-butyl-4-methylphenol							
	oral	LD50 mg/kg	> 2930	Rat	supplier SDS	OECD 401		
	dermal	LD50 mg/kg	> 2000	Rat	supplier SDS	OECD 402		

Irritation and corrosivity

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause an allergic skin reaction. ((octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate; Tris (2-Hydroxyethyl) Isocyanurate Triacrylate; 2-Propenoic acid, reaction productswith pentaerythritol; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide)

May cause sensitization by skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

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.

Additional information on tests

Contains Methacrylic esters.: May produce an allergic reaction.

SECTION 12: Ecological information

12.1. Toxicity

Preparation not tested.

according to Regulation (EC) No 1907/2006

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CAS No	Chemical name								
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
42594-17-2	(octahydro-4,7-methano-	1H-indenedi	yl)bis(methyl	ene) diad	rylate				
	Acute fish toxicity	LC50 mg/l	1,65	96 h	Danio rerio (zebrafish)	ECHA	OECD 203		
	Acute algae toxicity	ErC50	1,6 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA	OECD 201		
	Acute crustacea toxicity	EC50 mg/l	2,36	48 h	Daphnia magna (Big water flea)	ECHA	OECD 202		
40220-08-4	Tris (2-Hydroxyethyl) Iso	cyanurate Tr	iacrylate						
	Acute fish toxicity	LC50 mg/l	9,43	96 h	Danio rerio (zebrafish)	supplier SDS/ ECHA	OECD 203		
	Acute algae toxicity	ErC50 mg/l	25,7		Pseudokirchneriella subcapitata	supplier SDS/ ECHA	OECD 201		
	Acute crustacea toxicity	EC50 mg/l	158,3	48 h	Daphnia magna (Big water flea)	supplier SDS/ ECHA	OECD 202		
1245638-61- 2	2-Propenoic acid, reaction	n productsw	ith pentaerytl	hritol					
	Acute fish toxicity	LC50	3,2 mg/l	96 h	Cyprinus carpio (Common Carp)	supplier SDS/ ECHA	OECD 203		
	Acute algae toxicity	ErC50	33 mg/l		Pseudokirchneriella subcapitata	supplier SDS	OECD 201		
	Acute crustacea toxicity	EC50	13 mg/l	48 h	Daphnia magna (Big water flea)	supplier SDS/ ECHA	OECD 202		
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide								
	Acute fish toxicity	LC50 mg/l	> 0,090	96 h	B.Danio rerio (zebrafish)	supplier SDS			
	Acute algae toxicity	ErC50 mg/l	> 0,260	72 h	Desmodesmus subspicatus	supplier SDS			
	Acute crustacea toxicity	EC50 mg/l	> 1,175	48 h	Daphnia magna (Big water flea)	supplier SDS			
	Crustacea toxicity	NOEC mg/l	0,008	21 d	Daphnia magna (Big water flea)				
	Acute bacteria toxicity	(EC50 mg/l)	> 100	3 h	Activated sludge	supplier SDS			
128-37-0	2,6-Di-tert-butyl-4-methyl	lphenol							
	Acute fish toxicity	LC50 mg/l	>0,57	96 h	Danio rerio (zebrafish)	supplier SDS			
	Acute algae toxicity	ErC50 mg/l	> 0,4	72 h	Desmodesmus subspicatus	supplier SDS			
	Acute crustacea toxicity	EC50 mg/l	0,48	48 h	Daphnia magna (Big water flea)	supplier SDS	OECD 202		
	Acute bacteria toxicity	(EC50 mg/l)	> 10000	3 h	Activated sludge	MSDS	OECD 209		

12.2. Persistence and degradability

Preparation not tested.

according to Regulation (EC) No 1907/2006

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CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation	•		-
40220-08-4	Tris (2-Hydroxyethyl) Isocyanurate Triacrylate			
	OECD 301F	14,5-19,7%	28	
	Not readily biodegradable (according to OECD criteria)			
1245638-61- 2	2-Propenoic acid, reaction productswith pentaerythritol			
	OECD 301B	6-14%	28	
	Not readily biodegradable (according to OECD criteria)	-		
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide			
	OECD 301B	1 %	28	
	Not readily biodegradable (according to OECD criteria)			
128-37-0	2,6-Di-tert-butyl-4-methylphenol			
	Persistence and degradability	< 10 %	20	OECD 301D
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

Preparation not tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
42594-17-2	(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	4,64
40220-08-4	Tris (2-Hydroxyethyl) Isocyanurate Triacrylate	1,09-2,61
1245638-61-2	2-Propenoic acid, reaction productswith pentaerythritol	3,11
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	5,8
128-37-0	2,6-Di-tert-butyl-4-methylphenol	5,10

BCF

CAS No	Chemical name	BCF	Species	Source
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)	< 5	Cyprinus carpio (Common	
	-phosphine oxide		Carp)	

12.4. Mobility in soil

Preparation not 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.

Preparation not tested.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: 2,6-Di-tert-butyl-4-methylphenol.

12.7. 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

liquid: Carry out a burning of harzardous waste according to official regulations.

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

according to Regulation (EC) No 1907/2006

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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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

2010/75/EU (VOC): 0,033 % (0,36 g/l)

National regulatory information

Water hazard class (D): 1 - slightly 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
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.

H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 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 May equal long lasting harmful effects to aquatic

H413 May cause long lasting harmful effects to aquatic life.

Further Information

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