

Material Safety Data Sheet according to (EC) 1907/2006



Tradename:

DURASPLINT monomer

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

1.1. Product identifier

Name of product: DURASPLINT monomer

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

Use of the substance/mixture

Creation of dental products.

1.3. Details of the supplier of the safety data sheet

Manufacturer / distributor

SCHEU DENTAL GmbH
Am Burgberg 20
D-58642 Iserlohn
Tel. +49 (2374) 9288-0
Fax +49 (2374) 9288-90

eMail: service@SCHEU-DENTAL.com
Internet: www.SCHEU-DENTAL.com

1.4. Emergency telephone number: +49 (2374) 9288-0

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Irrit. 2
Respiratory/skin sensitization: Skin Sens. 1
Specific target organ toxicity – single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
Harmful if inhaled.
May cause respiratory irritation.

2.2. Label elements

Hazardous components which must be listed on the label

Methyl methacrylate

Labelling according to Regulation (EC) No. 1272/2008

The product is classified and labelled according to the CLP regulation.

Signal word: Danger

Hazard Pictograms: GHS02 GHS07



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Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H332	Harmful by inhalation.
H335	May cause respiratory irritation.

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P240	Ground/bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection. [As modified by IV ATP]

2.3. Other hazards

No further relevant information available.

SECTION 3: Composition / information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Hazardous components

EC-No..	Chemical name	Quantity
CAS-No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
Index-No.		
REACH-No.		
201-297-1	methyl methacrylate	95 - < 100 %
80-62-6	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335	

Additional information

For the wording of the listed H-phrases refer to section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General Information:** Remove contaminated, saturated clothing immediately. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.
- 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 polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.
- After contact with eyes:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
- After ingestion:** Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.

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

No further relevant information available.

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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

Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Special protective equipment for fire fighters:

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. 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

Remove all sources of ignition. 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 uncontrolled discharge of product into the environment. Danger of explosion.

6.3. Methods and material for containment and cleaning up

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

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

Advice on protection against fire and explosion

Keep away from sources of ignition. – No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Creation of dental brace.

SECTION 8: Exposure controls / personal protection

Additional information about design of technical facilities.

No further data ; see item 7.

8.1. Control parameters

CAS-No.	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
80-62-6	Methyl methacrylate	50	208		TWA (8h)	WEL
		100	416		STEL (15 min)	WEL

CAS-No.	Substance	Exposure route	Effect	Value
80-62-6	Methyl methacrylate			
Worker DNEL, long-term		inhalation		208 mg/m ³
Worker DNEL, long-term		dermal		17 mg/kg bw/day

Additional information:

The lists valid during the making were used as basis.

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.

Protective and hygiene measures:

Remove contaminated, saturated clothing immediately. 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.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

When handling chemical substances, only chemical protective gloves with CE Mark indicating a four digit code have to be worn. Chemical protective gloves must be chosen depending on concentrations of hazardous substances and - the specific working place. It is recommended to check the chemical resistance of the aforementioned protective gloves for special applications with the glove manufacturer .

Eye/face protection

Wear eye/face protection.

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Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Physical state:	liquid
Colour:	colourless
Odour:	characteristic

pH-value:	not determined
Melting point:	-48,2 °C
Initial boiling point and boiling range:	100,3 °C
Flash point:	10 °C
Flammability	
Solid:	not applicable
Gas:	not applicable
Flammable limits (lower)	2,1 vol. %
Flammable limits (upper)	12,5 vol. %
Ignition temperature:	430 °C
Auto-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined
Oxidising properties:	not oxidizing
Vapour pressure:	38,7 hPa at 20 °C
Relative Density:	0.94 g/cm ³
Water solubility:	15,9 g/L
Solubility in other solvents:	very soluble
Partition coefficient: n-octanol/water	1,38
Viscosity / dynamic: :	0.63 mPa*s
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solid content: not determined

none

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable, Ignition hazard.

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

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours may form explosive mixtures with air.

10.5. Incompatible materials

No further relevant information available.

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10.6. Hazardous decomposition products

No dangerous decomposition products known. Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Harmful by inhalation.

ATE (inhalative vapour) 15,52 mg/l

CAS-No.	Chemical name				
	Exposure routes	Method	Dose	Species	Source
80-62-6	methyl methacrylate				
	oral	LD50	> 5000 mg/kg	rat	OECD 401
	dermal	LD50	> 5000 mg/kg	rabbit	
	inhalative vapour	LC50	29,8 mg/l	rat	

Irritation and corrosivity

Causes skin irritation.

Sensitising effects

May cause an allergic skin reaction. (Methyl methacrylate)

STOT-single exposure

May cause respiratory irritation. (Methyl methacrylate)

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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

Aspiration hazard

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

Additional toxicological information:

This mixture is classified as hazardous according to 1999/45/EC.

SECTION 12: Ecological Information

12.1. Toxicity

The product is not: Ecotoxic.

CAS-No.	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
80-62-6	Methylmethacrylat					
	Acute fish toxicity	LD50	>79 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute algae toxicity	ErC50	>110 mg/l	72 h	Selenastrum capricornutum	OECD 201
	Acute crustacea toxicity	EC50	69 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
	Crustacea toxicity	NOEC	37 mg/l	21 d	Daphnia magna (Big water flea)	OECD 202

12.2. Persistence and degradability

The product has not been tested.

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12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No.	Chemical name	Log Pow
80-62-6	Methyl methacrylate	1,38

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT an vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No further relevant information available.

Further information

Avoid release to the environment.


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.


Contaminated packaging:

Wash with plenty of water. Completely emptied packages can be recycled.


SECTION 14: Transport Information**Land transport (ADR/RID)**

14.1. UN number:	1247	
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED	
14.3. Transport hazard class(es):	3	
14.4. Packing group:	II	
Hazard label:	3	
Classification code:	F1	
Limited quantity:	1 L	
Transport category:	2	
Hazard No:	339	
Tunnel restriction code:	D/E	
Other applicable information (land transport)		

Inland waterways transport (ADN)

14.1. UN number:	1247	
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED	
14.3. Transport hazard class(es):	3	
14.4. Packing group:	II	
Hazard label:	3	
Classification code:	F1	
Limited quantity:	1 L	
Other applicable information		

Marine transport (IMDG)

14.1. UN number:	1247	
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14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED
14.3. Transport hazard class(es):	3
14.4. Packaging group:	II
Hazard label:	3
Limited quantity:	1 L
EmS:	F-E,S-D
Other applicable information (marine transport):	

Air transport (ICAO)

14.1. UN number:	1247	
14.2. UN proper shipping name:	METHYL METHACRYLATE MONOMER, STABILIZED	
14.3. Transport hazard class(es):	3	
14.4. Packaging group:	II	
Hazard label:	3	
Limited quantity Passenger:	1 L	
IATA-packing instructions - Passenger:	353	
IATA-max. quantity - Passenger:	5 L	
IATA-packing instructions - Cargo:	364	
IATA-max. quantity - Cargo:	60 L	
Other applicable information (air transport)	E2	
Passenger-LQ:	Y341	

14.6. Special precautions for user

Warning: Flammable liquids.

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 informations:****Employment restrictions:** Observe employment restrictions for young people.**Water hazard class:** Water hazard class I: slightly water contaminating.

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other Information**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
ELINCS	European List of Notified Chemical Substances
CAS	Chemical Abstracts Service (division of the American Chemical Society)
LC50	Lethal concentration, 50 %
LD50	Lethal dose, 50 %

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Relevant H- and EUH-phrases (number and full text)**Hazard statements**

- | | |
|------|--------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful by inhalation. |
| H335 | May cause respiratory irritation. |

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.