

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

**Issuing Date** 17-Aug-2016

**Revision Date** 13-Apr-2017

**Revision Number** 2

EGHS / English

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Name** VariDur 10 Powder

**Product Code(s)** 10-1027, 11-1031

**(M)SDS Number** 1344864\_E

**Chemical name**

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

**Recommended Use** Laboratory Use Only.

**Uses advised against** No information available.

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

**Manufacturer** ITW Test & Measurement GmbH

**Manufacturer Address** Boschstraße 10  
73734 Esslingen am Neckar / GERMANY  
www.buehler-met.de www.buehler.fr www.buehler.co.uk

**Phone number** +49 (0) 711 4904690-0

**E-mail Address** lab.eu@buehler.com

### 1.4. Emergency telephone number

Global Access Code: 334545

Americas: +1 760 476 3962

Middle East/Africa: +1 760 476 3959

UK: +44 8 08 189 0979

Europe: +1 760 476 3961

Asia Pacific: +1 760 476 3960

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**2.2. Label elements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

EUH210 - Safety data sheet available on request

**2.3. Other hazards**

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances**

Not applicable.

**3.2 Mixtures**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Polymethyl methacrylate	-	9011-14-7	90 - 100%	No data available	
Methyl methacrylate	Present	80-62-6	0 - 1%	Skin Irrit. 2 (H315)Liq. 2 (H225)SE 3(H335)Sens. 1 (H317)	
Benzoyl peroxide	Present	94-36-0	0 - 1%	Org. Perox. B (H241) Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	201-545-9	84-61-7	0 - 1%	Repr. 1B (H360D) Skin Sens. 1 (H317)	

**Full text of H- and EUH-phrases: see section 16**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No	SVHC candidates
Polymethyl methacrylate	9011-14-7	-
Benzoyl peroxide	94-36-0	-
Methyl methacrylate	80-62-6	-
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	84-61-7	-

### Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures****Inhalation**

Remove to fresh air.

**Skin contact**

Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

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

**Symptoms** No information available.

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

**Note to physicians** Treat symptomatically.

### **Section 5: FIRE FIGHTING MEASURES**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

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

##### **Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

#### **5.3. Advice for firefighters**

##### **Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

**Environmental precautions** Should not be released into the environment. See Section 12 for additional Ecological Information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

#### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling**                    Ensure adequate ventilation.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions**                    Keep container tightly closed in a dry and well-ventilated place.

### 7.3. Specific end use(s)

**Risk Management Methods (RMM)**                    The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits

Chemical name	EU	United Kingdom	France	Spain	Germany
Methyl methacrylate 80-62-6	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm STEL: 416 mg/m <sup>3</sup> TWA: 50 ppm TWA: 208 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 205 mg/m <sup>3</sup> STEL: 100 ppm STEL: 410 mg/m <sup>3</sup>	STEL: 100 ppm TWA: 50 ppm	TWA: 50 ppm TWA: 210 mg/m <sup>3</sup>
Benzoyl peroxide 94-36-0	-	STEL: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
1,2-Benzenedicarboxylic acid, dicyclohexyl ester 84-61-7	-	STEL: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	-	-	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Methyl methacrylate 80-62-6	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm TWA: 50 ppm	STEL: 410 mg/m <sup>3</sup> TWA: 205 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 42 mg/m <sup>3</sup> STEL: 50 ppm STEL: 210 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 102 mg/m <sup>3</sup> H*
Benzoyl peroxide 94-36-0	-	TWA: 5 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
1,2-Benzenedicarboxylic acid, dicyclohexyl ester 84-61-7	-	-	-	-	TWA: 3 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Methyl methacrylate 80-62-6	STEL 100 ppm STEL 420 mg/m <sup>3</sup> TWA: 50 ppm TWA: 210 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 420 mg/m <sup>3</sup> TWA: 50 ppm TWA: 210 mg/m <sup>3</sup>	STEL: 300 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 100 mg/m <sup>3</sup> H* STEL: 100 ppm STEL: 400 mg/m <sup>3</sup>	TWA: 50 ppm STEL: 100 ppm
Benzoyl peroxide 94-36-0	STEL 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	STEL: 5 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>
1,2-Benzenedicarboxylic acid, dicyclohexyl ester 84-61-7	TWA: 5 mg/m <sup>3</sup>	-	-	-	TWA: 5 mg/m <sup>3</sup>

ic acid, dicyclohexyl ester 84-61-7					STEL: 15 mg/m <sup>3</sup>
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**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

**8.2. Exposure controls**

**Personal protective equipment**

- Eye/face protection**           Tight sealing safety goggles.
- Skin and body protection**   Wear suitable protective clothing.

**Environmental exposure controls**           No information available.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Physical state**                   Powder(s)  
**Appearance**                   Powder(s)  
**Odor**                                Odorless  
**Color**                               No information available  
**Odor Threshold**                No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	No data available	None known	
Melting / freezing point	110°C	None known	
Boiling point / boiling range	No data available	None known	
Flash Point	>250°C	None known	
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Relative density	No data available	None known	
Water Solubility	Insoluble		
Solubility(ies)	No data available	None known	
Partition coefficient: n-octanol/water	No data available	None known	
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Viscosity	No data available	None known	

**9.2. Other information**

**Softening Point**                   No information available  
**Molecular Weight**                No information available  
**VOC Content (%)**                 Not applicable  
**Liquid Density**                    No information available

<b>Bulk Density</b>	1.16 g/cm <sup>3</sup>
<b>Particle Size</b>	No information available
<b>Particle Size Distribution</b>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

Stable under normal conditions.

#### Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

### 10.3. Possibility of hazardous reactions

**Possibility of Hazardous Reactions** None under normal processing.

### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

None under normal use conditions.

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Information on likely routes of exposure

##### **Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

#### Information on toxicological effects

**Symptoms** No information available.

#### Numerical measures of toxicity

**Acute Toxicity****Unknown acute toxicity**

- 98.5 % of the mixture consists of ingredient(s) of unknown toxicity
- 98.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 98.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 98.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 98.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 98.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl methacrylate	= 7900 mg/kg ( Rat ) = 7872 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	= 4632 ppm ( Rat ) 4 h
Benzoyl peroxide	= 7710 mg/kg ( Rat ) = 6400 mg/kg ( Rat )	-	-
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	= 30 mL/kg ( Rat )	-	-

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive Toxicity** No information available.

Chemical name	EU - Annex VI Reproductive
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	Repr. 1B

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity****Ecotoxicity**

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)

Methyl methacrylate	96h EC50: = 170 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 243 - 275 mg/L (Pimephales promelas) 96h LC50: 125.5 - 190.7 mg/L (Pimephales promelas) 96h LC50: 153.9 - 341.8 mg/L (Lepomis macrochirus) 96h LC50: > 79 mg/L (Oncorhynchus mykiss) 96h LC50: 170 - 206 mg/L (Lepomis macrochirus) 96h LC50: 326.4 - 426.9 mg/L (Poecilia reticulata)	-	48h EC50: = 69 mg/L
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**12.2. Persistence and degradability**

**Persistence and Degradability** No information available.

**12.3. Bioaccumulative potential****Bioaccumulation**

Chemical name	Log Pow
Methyl methacrylate	0.7

**12.4. Mobility in soil**

**Mobility in soil** No information available.

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

**PBT and vPvB assessment** No information available.

Chemical name	PBT and vPvB assessment
Methyl methacrylate	
Benzoyl peroxide	Not applicable
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	Not applicable

**12.6. Other adverse effects**

**Other adverse effects** No information available.

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
1,2-Benzenedicarboxylic acid, dicyclohexyl ester	Group III Chemical	-

## Section 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**



<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	No information available.

### Section 14: TRANSPORT INFORMATION

<b><u>IMDG/IMO</u></b>	NOT REGULATED
<b>14.1 UN-No.</b>	Not Regulated
<b>14.2 Proper Shipping Name</b>	NOT REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Marine Pollutant</b>	Not applicable
<b>14.6 Special Provisions</b>	None
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	No information available

<b><u>RID</u></b>	NOT REGULATED
<b>14.1 UN-No.</b>	NOT REGULATED
<b>14.2 Proper Shipping Name</b>	NOT REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

<b><u>ADR</u></b>	NOT REGULATED
<b>14.1 UN-No.</b>	NOT REGULATED
<b>14.2 Proper Shipping Name</b>	NOT REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

<b><u>IATA</u></b>	NOT REGULATED
<b>14.1 UN-No.</b>	NOT REGULATED
<b>14.2 Proper Shipping Name</b>	NON REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	None

### Section 14: TRANSPORT INFORMATION

<b><u>IMDG/IMO</u></b>	NOT REGULATED
<b>14.1 UN-No.</b>	Not Regulated
<b>14.2 Proper Shipping Name</b>	NOT REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Marine Pollutant</b>	Not applicable
<b>14.6 Special Provisions</b>	None

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code** No information available

**RID** NOT REGULATED  
**14.1 UN-No.** NOT REGULATED  
**14.2 Proper Shipping Name** NOT REGULATED  
**14.3 Hazard Class** NOT REGULATED  
**14.4 Packing Group** NOT REGULATED  
**14.5 Environmental hazard** Not applicable  
**14.6 Special Provisions** None

**ADR** NOT REGULATED  
**14.1 UN-No.** NOT REGULATED  
**14.2 Proper Shipping Name** NOT REGULATED  
**14.3 Hazard Class** NOT REGULATED  
**14.4 Packing Group** NOT REGULATED  
**14.5 Environmental hazard** Not applicable  
**14.6 Special Provisions** None

**IATA** NOT REGULATED  
**14.1 UN-No.** NOT REGULATED  
**14.2 Proper Shipping Name** NON REGULATED  
**14.3 Hazard Class** NOT REGULATED  
**14.4 Packing Group** NOT REGULATED  
**14.5 Environmental hazard** Not applicable  
**14.6 Special Provisions** None

## Section 15: REGULATORY INFORMATION

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

#### National regulations

##### France

#### Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Polymethyl methacrylate 9011-14-7	RG 65	-
Methyl methacrylate 80-62-6	RG 65, RG 82 RG 65	-
Benzoyl peroxide 94-36-0	RG 66	-

**Water hazard class (WGK)** slightly hazardous to water (WGK 1)

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH),

Annex XVII).

### Persistent Organic Pollutants

Not applicable.

### Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

### International Inventories

<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AICS</b>	Contact supplier for inventory compliance status.

### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

No information available.

## Section 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Full text of H-Statements referred to under sections 2 and 3

H315 - Causes skin irritation

H225 - Highly flammable liquid and vapor

H335 - May cause respiratory irritation

H317 - May cause an allergic skin reaction

H241 - Heating may cause a fire or explosion

H319 - Causes serious eye irritation

#### Legend

SVHC: Substances of Very High Concern for Authorization:

### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation

**Key literature references and sources for data**

[www.ChemADVISOR.com/](http://www.ChemADVISOR.com/)

Issuing Date 01-Mar-2017

Revision Date 13-Apr-2017

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

**Disclaimer**

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**End of Safety Data Sheet**