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**1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier

Product Name VariDur 10 Powder

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

(M)SDS Number 1344864\_J

Other means of identification

Synonyms No information available

Registration Number No information available

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory Use Only

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Buehler

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**2. HAZARDS IDENTIFICATION**GHS Classification

|                        |             |
|------------------------|-------------|
| Reproductive toxicity  | Category 1B |
| Acute aquatic toxicity | Category 3  |

Label elements



Signal word

Danger

**Hazard statements**

H360 - May damage fertility or the unborn child

H402 - Harmful to aquatic life

**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Not applicable

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

| Chemical name                                    | Weight-%  | Inventory - Japan - Existing and New Chemical Substances (ENCS) | ISHL No.                 | CAS No    |
|--|-----------|---|--------------------------|-----------|
| Polymethyl methacrylate                          | 90 - 100% | No information available  | No information available | 9011-14-7 |
| Methyl methacrylate                              | 0 - 1%    | (2)-1036  | No information available | 80-62-6   |
| Benzoyl peroxide                                 | 0 - 1%    | (3)-1349  | No information available | 94-36-0   |
| 1,2-Benzenedicarboxylic acid, dicyclohexyl ester | 0 - 1%    | (3)-1311  | No information available | 84-61-7   |

**Pollutant Release and Transfer Registry (PRTR)**

Not applicable.

| Chemical name   | Weight-% | Class                                  | Cabinet order number | Relevant substance, conversion factor |
|---|----------|--|----------------------|---------------------------------------|
| Methyl methacrylate<br>80-62-6                              | 0 - 1%   | Class I designated chemical substance  |                      |                                       |
| 1,2-Benzenedicarboxylic acid, dicyclohexyl ester<br>84-61-7 | 0 - 1%   | Class II designated chemical substance |                      |                                       |

**Industrial Safety and Health Law**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

| Chemical name                  | ISHL Notifiable Substances | Threshold Values (%) |
|--------------------------------|----------------------------|----------------------|
| Methyl methacrylate<br>80-62-6 | ISHL Notifiable Substances | 0.1                  |
| Benzoyl peroxide<br>94-36-0    | ISHL Notifiable Substances | 0.1                  |

**Poisonous and Deleterious Substances Control Law** Not applicable

## 4. FIRST AID MEASURES

### First aid measures

|                           |  |
|---------------------------|--|
| <b>General advice</b>     | Show this safety data sheet to the doctor in attendance.   |
| <b>Inhalation</b>         | Remove to fresh air.   |
| <b>Eye contact</b>        | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| <b>Skin contact</b>       | Wash skin with soap and water.   |
| <b>Ingestion</b>          | Clean mouth with water and drink afterwards plenty of water.   |
| <b>Symptoms</b>           | No information available.  |
| <b>Note to physicians</b> | Treat symptomatically.   |

## 5. FIRE-FIGHTING MEASURES

|   |  |
|---|--|
| <b>Flammable Properties</b>                           | Not flammable.   |
| <b>Suitable Extinguishing Media</b>                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                            |
| <b>Unsuitable extinguishing media</b>                 | No information available.  |
| <b>Specific hazards arising from the chemical</b>     | No information available.  |
| <b>Hazardous Combustion Products</b>                  | Carbon oxides.   |
| <b>Special Extinguishing Media</b>                    | Cool drums with water spray.   |
| <b>Special protective equipment for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

## 6. ACCIDENTAL RELEASE MEASURES

|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                          |
| <b>For emergency responders</b>  | Use personal protection recommended in Section 8.     |
| <b>Environmental precautions</b> | See Section 12 for additional Ecological Information. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so. |

|  |  |
|--|--|
| <b>Methods for cleaning up</b>         | Pick up and transfer to properly labeled containers.                                 |
| <b>Prevention of secondary hazards</b> | Clean contaminated objects and areas thoroughly observing environmental regulations. |
| <b>Reference to other sections</b>     | See section 8 for more information. See section 13 for more information.             |

## 7. HANDLING AND STORAGE

### Handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

### Storage

**Storage Conditions** Store locked up.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure guidelines

| Chemical name                  | Japan                                    | ISHL Working Environmental Evaluation Standards - Administrative Control Levels | ACGIH TLV                    |
|--------------------------------|--|---|------------------------------|
| Methyl methacrylate<br>80-62-6 | TWA: 2 ppm<br>TWA: 8.3 mg/m <sup>3</sup> | -   | STEL: 100 ppm<br>TWA: 50 ppm |
| Benzoyl peroxide<br>94-36-0    | -  | -   | TWA: 5 mg/m <sup>3</sup>     |

**Biological occupational exposure limits** Not applicable

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection** Wear suitable protective clothing.

**Hand protection** Wear suitable gloves.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 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 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            |
| Explosive properties                   | No information available |                       |
| Oxidizing properties                   | No information available |                       |

**Other Information**

**Softening Point** No information available  
**Molecular Weight** No information available  
**VOC Content (%)** No information available  
**Liquid Density** No information available  
**Bulk Density** 1.16 g/cm<sup>3</sup>  
**Particle Size** No information available  
**Particle Size Distribution** No information available

## 10. STABILITY AND REACTIVITY

**Reactivity** No information available.

**Stability** Stable under normal conditions.

**Explosion Data**

|   |      |
|---|------|
| <b>Sensitivity to Mechanical Impact</b> | None |
| <b>Sensitivity to Static Discharge</b>  | None |

**Possibility of hazardous reactions** None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Incompatible materials** None known based on information supplied.

**Hazardous Decomposition Products** Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity****Product Information**

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. |
| <b>Symptoms</b>     | No information available.   |

#### Numerical measures of toxicity - Product Information

##### Unknown acute 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)

#### Numerical measures of toxicity - Component Information

| Chemical name  | Oral LD50                                    | Dermal LD50         | Inhalation LC50        |
|--|--|---------------------|------------------------|
| Methyl methacrylate<br>80-62-6                                 | = 7900 mg/kg ( Rat ) = 7872<br>mg/kg ( Rat ) | > 5 g/kg ( Rabbit ) | = 4632 ppm ( Rat ) 4 h |
| Benzoyl peroxide<br>94-36-0                                    | = 7710 mg/kg ( Rat ) = 6400<br>mg/kg ( Rat ) | -                   | -                      |
| 1,2-Benzenedicarboxylic acid,<br>dicyclohexyl ester<br>84-61-7 | = 30 mL/kg ( Rat )                           | -                   | -                      |

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

|  |                           |
|--|---------------------------|
| <b>Skin corrosion/irritation</b>         | No information available. |
| <b>Serious eye damage/eye irritation</b> | No information available. |
| <b>Respiratory or skin sensitization</b> | No information available. |
| <b>Germ cell mutagenicity</b>            | No information available. |
| <b>Carcinogenicity</b>                   | No information available. |

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name                  | GHS-Carcinogenicity | IARC    |
|--------------------------------|---------------------|---------|
| Methyl methacrylate<br>80-62-6 |                     | Group 3 |
| Benzoyl peroxide<br>94-36-0    |                     | Group 3 |

##### Legend:

- IARC (International Agency for Research on Cancer)
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

|                               |   |
|-------------------------------|---|
| <b>Reproductive toxicity</b>  | Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. |
| <b>STOT - single exposure</b> | No information available.   |

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

**Target Organ Effects** Skin.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Percentage for unknown hazards** 98.5 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

**Ecotoxicity** Harmful to aquatic life.

| 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        |

**Persistence and Degradability** No information available.

### Bioaccumulation

### Component Information

| Chemical name       | Log Pow |
|---------------------|---------|
| Methyl methacrylate | 0.7     |

**Mobility in soil** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

| Chemical name                                    | EU - Endocrine Disruptors Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|--|--|--|---|
| 1,2-Benzenedicarboxylic acid, dicyclohexyl ester | Group III Chemical                       | -  | Industrial chemical                     |

## 13. DISPOSAL CONSIDERATIONS

|  |   |
|--|---|
| <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>              | Do not reuse empty containers.  |

## 14. TRANSPORT INFORMATION

|                             |               |
|-----------------------------|---------------|
| <b>IMDG/IMO</b>             | NOT REGULATED |
| <b>ADR</b>                  | NOT REGULATED |
| <b>IATA</b>                 | NOT REGULATED |
| <b>Proper Shipping Name</b> | NON REGULATED |
| <b>Japan</b>                |               |
| <b>Hazard Class</b>         | N/A           |

## 15. REGULATORY INFORMATION

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

#### National Regulations

##### Japan

#### **Pollutant Release and Transfer Registry (PRTR)**

Not applicable

#### **Industrial Safety and Health Law**

##### **ISHL Notifiable Substances**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

#### **Fire Service Law:**

Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met

| Chemical name                  | Fire service law group | Hazardous material                    | Hazard rank |
|--------------------------------|------------------------|---------------------------------------|-------------|
| Methyl methacrylate<br>80-62-6 | 4                      | Flammable liquids                     | II          |
| Benzoyl peroxide<br>94-36-0    | 5                      | Self-reactive substances and mixtures | I           |

#### **Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)**

Not applicable

#### **Labor Standards Act**

Occupational illnesses caused by chemical substances - Labor Standards Act article 75, Enforcement Ordinance article 35 and Notification Designating Elements and Compounds of Chemical Substances and Occupational Illnesses Table 1-2 item 4-1

#### **Air Pollution Control Law**

Air pollutants with regulated emissions standards, Air Pollution Control Act article 3

Volatile organic compound per Air Pollution Control Law article 2, paragraph 4

Hazardous air pollutants (HAPs) per Air Pollution Control Law article 2, paragraph 1, item 3 and Enforcement Order article 1

#### International Regulations



**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements** 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>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

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

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

**AICS** - Australian Inventory of Chemical Substances

## 16. OTHER INFORMATION

**Prepared By** Product Stewardship  
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**Revision Date** 17-Aug-2016

**Revision Note** No information available

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

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

**Disclaimer**

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan). The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



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**End of Safety Data Sheet**