

Issuing Date 17-Aug-2016

Revision Date 08-Nov-2018

Revision Number 3

Japan / English

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

**Product Name** VariKleer Powder  
**Product Code(s)** 20-3591, 20-3591-002, 20-3591-010  
**(M)SDS Number** 1344870\_J

**Other means of identification**

**Synonyms** No information available  
**Registration Number(s)** 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  
**Manufacturer Address** Loop-X 6th Floor 3-9-15  
kaigan Minato-ku, Tokoyo 108-0022  
www.buehler.com/Japan  
**Phone number** +81 (0)3 5439 5077  
**E-mail Address** info.japan@buehler.com  
**Legal Entity** ITW Japan KK  
**Legal Entity Address** 1-4-4, Kitasuna, Koto-ku, Tokyo

**Emergency telephone number**

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Middle East/Africa: +1 760 476 3959 Europe: +1 760 476 3961  
Japan: +81 36 8908677

**2. HAZARDS IDENTIFICATION****GHS Classification**

Acute aquatic toxicity	Category 3
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**Label elements**

**Hazard statements**

H402 - Harmful to aquatic life

**Precautionary Statements - Prevention**

Avoid release to the environment

**Precautionary Statements - Response**

Not applicable

**Precautionary Statements - Storage**

Not applicable

**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-%	ENCS - Japan Existing and New Chemical Substances	ISHL No.	CAS-No
Polymethyl methacrylate	90 - 100%	(6)-524	Present	9011-14-7
Methyl methacrylate	0 - 1%	(2)-1036	Present	80-62-6
Benzoyl peroxide	0 - 1%	(3)-1349	Present	94-36-0

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

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed.

Chemical name	Weight-%	Class	Cabinet order number	Relevant substance, conversion factor
Methyl methacrylate 80-62-6	0 - 1%	Class I designated chemical substance	1-420	

**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 80-62-6	ISHL Notifiable Substances	0.1
Benzoyl peroxide 94-36-0	ISHL Notifiable Substances	0.1

**Poisonous and Deleterious Substances Control Law** Not applicable**4. FIRST AID MEASURES****First aid measures****Inhalation**

Remove to fresh air.

**Eye contact**

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>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.

### Storage

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure guidelines** .

Chemical name	Japan	ISHL Working Environmental Evaluation Standards -	ACGIH TLV
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		Administrative Control Levels	
Methyl methacrylate 80-62-6	TWA: 2 ppm TWA: 8.3 mg/m <sup>3</sup>	-	STEL: 100 ppm TWA: 50 ppm
Benzoyl peroxide 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** No special protective equipment required.

**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** Colorless  
**Odor** Characteristic  
**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	No data available	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 (%)	Not applicable
Liquid Density	No information available
Bulk Density	No information available
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	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None
Possibility of hazardous reactions	None under normal processing.
Incompatible materials	None known based on information supplied.
Hazardous Decomposition Products	None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### 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.
Symptoms	No information available.

### Numerical measures of toxicity - Product Information

#### Unknown acute toxicity

- 99 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 99 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

### Numerical measures of toxicity - Component Information

Chemical name	LD50 Oral	LD50 Dermal	Inhalation LC50
Methyl methacrylate 80-62-6	= 7900 mg/kg ( Rat ) = 7872 mg/kg ( Rat )	> 5 g/kg ( Rabbit )	= 4632 ppm ( Rat ) 4 h
Benzoyl peroxide 94-36-0	= 7710 mg/kg ( Rat ) = 6400 mg/kg ( Rat )		

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

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

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

**Germ cell mutagenicity** No information available.

**Carcinogenicity** .

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

Chemical name	Carcinogenicity	IARC
Polymethyl methacrylate 9011-14-7		Group 3
Methyl methacrylate 80-62-6		Group 3
Benzoyl peroxide 94-36-0		Group 3

**Legend:**

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

**STOT - single exposure** 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** 0 % 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.

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. TRANSPORT INFORMATION

**IMDG** NOT REGULATED

**ADR** NOT REGULATED

**IATA** NOT REGULATED  
**Proper Shipping Name** NON REGULATED

**Japan**  
**Hazard Class** 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)**

See section 3 for more information

**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

Self-reactive materials, group 5, 2nd category, hazard rank II, 100 kg

**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****TSCA** Contact supplier for inventory compliance status.**DSL/NDSL** Contact supplier for inventory compliance status.**EINECS/ELINCS** Contact supplier for inventory compliance status.**ENCS** Contact supplier for inventory compliance status.**KECL** Contact supplier for inventory compliance status.**PICCS** Contact supplier for inventory compliance status.**AICS** 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**

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<b>Issuing Date</b>	01-Mar-2017
<b>Revision Date</b>	08-Nov-2018
<b>Revision Note</b>	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



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C Carcinogen

**Disclaimer**

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**End of Safety Data Sheet**