Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • Buehler Varidur Powder & Varidur Kit / SDS# 9107395

SDS Number/Grade • 9107395

• 20-3570; 20-3572 & 20-3576

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

Relevant identified use(s) • Acrylic base

1.3 Details of the supplier of the safety data sheet

BUEHLER, a division of Illinios Tool Works Inc.

41 Waukegan Road Lake Bluff, IL 60044 United States

Telephone (Technical) • 847-295-6500

1.4 Emergency telephone number

Manufacturer • 800-424-9300 - CHEMTREC

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

• Skin Sensitization 1 - H317

• Irritant (Xi)

2.2 Label Elements

CLP

WARNING



Hazard statements • H317 - May cause an allergic skin reaction

Precautionary statements

Prevention • P261 - Avoid breathing dust.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves .

Response • P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P363 - Wash contaminated clothing before reuse.

P321 - Specific treatment, see supplemental first aid information.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Storage/Disposal • P501 - Dispose of content and/or container in accordance with local, regional,

national, and/or international regulations.

DSD/DPD



Risk phrases • R43 - May cause sensitisation by skin contact.

Safety phrases • S24 - Avoid contact with skin. S37 - Wear suitable gloves.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show

the label where possible).

2.3 Other Hazards

CLP • May form combustible dust concentrations in air.

According to Regulation (EC) No. 1272/2008 (CLP) this material is considered

hazardous.

• May form combustible dust concentrations in air.

According to European Directive 1999/45/EC this material is considered dangerous.

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2.1 Classification of the substance or mixture

UN GHS

· Skin Sensitization 1

2.2 Label elements

UN GHS

WARNING



Hazard statements • May cause an allergic skin reaction

Precautionary statements

Prevention • Avoid breathing dust.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves .

Response • IF ON SKIN: Wash with plenty of soap and water.

Wash contaminated clothing before reuse.

Specific treatment, see supplemental first aid information. If skin irritation or rash occurs: Get medical advice/attention.

Storage/Disposal • Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

2.3 Other hazards

UN GHS

May form combustible dust concentrations in air.

According to the Globally Harmonized System for Classification and Labeling (GHS)

this product is considered hazardous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

 Skin Sensitization 1 Combustible Dust

2.2 Label elements OSHA HCS 2012

WARNING



Hazard statements • May cause an allergic skin reaction

May form combustible dust concentrations in air.

Precautionary statements

Prevention • Avoid breathing dust.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves .

Response • If on skin: Wash with plenty of water .

Wash contaminated clothing before reuse.

Specific treatment, see supplemental first aid information. If skin irritation or rash occurs: Get medical advice/attention.

Storage/Disposal •

Dispose of content and/or container in accordance with local, regional, national, and/or

international regulations.

2.3 Other hazards

OSHA HCS 2012

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication

Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS

· Other Toxic Effects - D2B

2.2 Label elements

WHMIS



Other Toxic Effects - D2B

2.3 Other hazards

WHMIS

May form combustible dust concentrations in air.

In Canada, the product mentioned above is considered hazardous under the

Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Poly(ethyl methacrylate)	CAS:9003-42-3	< 99%	NDA	UN GHS: Not Classified EU DSD/DPD: Not Classified EU CLP: Not Classified OSHA HCS 2012: Comb. Dust	NDA
Benzoyl peroxide	CAS:94-36-0 EC Number:202- 327-6 EU Index:617- 008-00-0	< 2%	Ingestion/Oral-Rat LD50 • 7710 mg/kg	UN GHS: Org. Perox.; Skin Sens. 1; Skin Irrit. 2; Eye Irrit. 2 EU DSD/DPD: Annex VI, Table 3.2: E, R3; O, R7; Xi, R36; R43 EU CLP: Annex VI, Table 3.1: Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317 OSHA HCS 2012: Org. Perox.; Skin Sens. 1; Skin Irrit. 2; Eye Irrit. 2	NDA

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

• Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If signs/symptoms continue, get medical attention.

Skin

In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Take off contaminated clothing and wash before reuse. If irritation develops and persists, get medical attention.

Eye

• In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion

• Do NOT induce vomiting. Give victim a glass of water or milk. Never give anything by mouth to an unconscious person. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

All treatments should be based on observed signs and symptoms of distress in the
patient. Consideration should be given to the possibility that overexposure to materials
other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Alcohol foam, CO2, dry chemical, foam.

Unsuitable Extinguishing Media

 Water stream can disperse dust in air producing a fire hazard and possible explosion hazard if exposed to ignition source.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Polymer dust is combustible.

Hazardous Combustion Products

No data available

5.3 Advice for firefighters

Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

 Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away. Contain spill and monitor for excessive dust accumulation. Avoid unnecessary personnel and equipment traffic in the spill area.

6.2 Environmental precautions

Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

 Avoid generating dust.
 SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

LARGE SPILLS: Cover powder spill with plastic sheet or tarp to minimize spreading.

Use clean nonsparking tools to collect material.

Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient

concentration.

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

 Use only with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Keep container tightly closed. Keep only in the original container. Store in a cool/lowtemperature, well-ventilated dry place away from heat and ignition sources. Do not expose to direct sunlight. Do not keep at temperatures above 35°C.

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

Format: EU CLP/REACH Language: English (US) WHMIS, UN GHS, EU CLP, EU DSD/DPD, OSHA HCS

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	NIOSH	OSHA		
Benzoyl peroxide (94-36-0)	TWAs	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA		

8.2 Exposure controls

Engineering Measures/Controls

• Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment). It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion supression system or an oxygen-deficient environment.

Personal Protective Equipment

Respiratory

For limited exposure use an N95 dust mask. For prolonged exposure use an airpurifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA
respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a
NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are
exceeded or symptoms are experienced.

Eye/Face

Wear safety goggles.

Skin/Body

Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including
procedures to prevent spills, atmospheric release and release to waterways. Follow
best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

OSHA = Occupational Safety and Health Administration

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	White powder with no odor.
Color	White	Odor	Odorless
Odor Threshold	Data lacking		
General Properties		-	
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 1.25 Water=1	Water Solubility	Insoluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			•
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	< 1 n-Butyl Acetate = 1		
Flammability	•	•	•

Flash Point	304 C(579.2 F)	UEL	Data lacking	
LEL	Data lacking	Autoignition	Data lacking	
Flammability (solid, gas)	Data lacking			
Environmental				
Octanol/Water Partition coefficient	Data lacking			

9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

· No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

· Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

· Hazardous polymerization not indicated.

10.4 Conditions to avoid

 Avoid generating dust. Keep away from heat, sparks and flame. Temperatures above 240°C (464°F)

10.5 Incompatible materials

· Strong oxidizing agents.

10.6 Hazardous decomposition products

Methacrylate monomer and oxides of carbon when burned.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components				
Benzoyl peroxide (< 2%)	94- 36-0	Acute Toxicity: Ingestion/Oral-Rat LD50 • 6400 mg/kg; Irritation: Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Human • 5 % 8 Week(s)-Intermittent • Severe irritation; Multi-dose Toxicity: Skin-Mouse TDLo • 121120 µg/kg 4 Week(s)-Intermittent; Biochemical:Metabolism (intermediary):Effect on inflammation or mediation of inflammation; Mutagen: DNA damage • Skin-Mouse • 242 mg/kg 4 Week(s)-Intermittent; Tumorigen / Carcinogen: Skin-Mouse TDLo • 24 g/kg 30 Week(s)-Intermittent; Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Skin and Appendages:Other:Tumors		

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking

	UN GHS • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin sensitization	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1 UN GHS • Skin Sensitizer 1
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking

Potential Health Effects Inhalation

Acute (Immediate)

 Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

Skin

Acute (Immediate)

Chronic (Delayed)

Eye

Acute (Immediate)

• Exposure to dust may cause mechanical irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Exposure to dust may cause mechanical irritation. Excessive concentrations of

· No data available.

· No data available

nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.No data available.

Chronic (Delayed)

Ingestion

Acute (Immediate)

Chronic (Delayed)

Tro data available.

 Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

· No data available.

Key to abbreviations

LD = Lethal Dose
TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

Material data lacking.

12.2 Persistence and degradability

· Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

· Material data lacking.

12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

· No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for • None specified. user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Data lacking.

Section 15 - Regulatory Information

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

SARA Hazard Classifications • Chronic, Pressure(Sudden Release of)

Canada - WHMIS - Classifications of Substances

Inventory							
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA	
Benzoyl peroxide	94-36-0	Yes	No	Yes	No	Yes	
Poly(ethyl methacrylate)	9003-42-3	Yes	No	No	No	Yes	

94-36-0

C, D2B, F; C, D2B (70%)

· Benzoyl peroxide

Benzoyi peroxide	01000	0, 020, 1, 0, 020 (1070)
Poly(ethyl methacrylate)	9003-42-3	Not Listed
Canada - WHMIS - Ingredient Disclosure List		
Benzoyl peroxide	94-36-0	1 %
Poly(ethyl methacrylate)	9003-42-3	Not Listed
Invironment		
Canada - CEPA - Priority Substances List		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
nited States		
abor U.S OSHA - Process Safety Management - Highly Hazardous Chemicals		
Benzoyl peroxide	94-36-0	7500 lb TQ
Poly(ethyl methacrylate)	9003-42-3	Not Listed
- r olytemyr methaci ylate)	3003-42-3	INUL LISIEU
U.S OSHA - Specifically Regulated Chemicals		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
nvironment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed

94-36-0	1.0 % de minimis concentration
9003-42-3	Not Listed
94-36-0	Not Listed
9003-42-3	Not Listed
	9003-42-3 94-36-0

United States - California

Environment		
U.S California - Proposition 65 - Carcinogens List		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S California - Proposition 65 - Developmental Toxicity		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S California - Proposition 65 - No Significant Risk Levels (NSRL)		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Female		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed
U.S California - Proposition 65 - Reproductive Toxicity - Male		
Benzoyl peroxide	94-36-0	Not Listed
Poly(ethyl methacrylate)	9003-42-3	Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

H241 - Heating may cause a fire or explosion

H319 - Causes serious eye irritation

R3 - Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R7 - May cause fire. R36 - Irritating to eyes.

Last Revision Date

• 24/July/2015

Preparation Date

10/April/2013

Disclaimer/Statement of Liability

 To the best of our knowledge, the information contained in this SDS is accurate or is obtained from sources believed to be accurate. However, no liability, expressed or implied, is assumed for the accuracy or completeness of the information contained herein. Buyer assumes liability in its use of the material.

Kev to abbreviations

NDA = No data available