

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** KonductoMet  
**Product Code(s)** 20-3375-016, 20-3375-400  
**(M)SDS Number** 1341068\_A

### Other means of identification

**Synonyms** None

### 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** 41 Waukegan Rd  
Lake Bluff, IL 60044  
www.buehler.com  
**Phone number** +1 847 295 6500  
**E-mail Address** custserv@buehler.com

### Emergency telephone number

Global Access Code: 334545  
Americas: +1 760 476 3962 Asia Pacific: +1 760 476 3960  
Middle East/Africa: +1 760 476 3959 Europe: +1 760 476 3961

## 2. HAZARDS IDENTIFICATION


### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Carcinogenicity	Category 1A
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### GHS Label elements, including precautionary statements

Emergency Overview

<b>Signal word</b>	<b>Danger</b>		
<b>Hazard Statements</b>	May cause cancer		
			
<b>Appearance</b>	Black	<b>Physical state</b>	Granular
		<b>Odor</b>	Characteristic

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid release to the environment

**Precautionary Statements - Response**

None

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other information**

No information available

**Interactions with Other Chemicals**

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%	Trade Secret
Phenol-formaldehyde polymer	9003-35-4	30 - 40%	*
Graphite	7782-42-5	30 - 40%	*
Glass, oxide	65997-17-3	20 - 30%	*
Methenamine	100-97-0	0 - 10%	*
Quartz	14808-60-7	0 - 3%	*
C.I. Solvent Black 7	8005-02-5	0 - 3%	*
Phenol	108-95-2	< 1%	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret

## 4. FIRST AID MEASURES

### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<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>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Rinse mouth immediately and drink plenty of water.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	No information available.
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### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific hazards arising from the chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

<b>Uniform Fire Code</b>	Sensitizer: Solid
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### Explosion Data

<b>Sensitivity to Mechanical Impact</b>	None.
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<b>Sensitivity to Static Discharge</b>	None.
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### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

### 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** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**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. Take off contaminated clothing and wash before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**Incompatible Products** Strong acids. Strong oxidizing agents. Strong bases. Halogens.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup> respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m <sup>3</sup> total dust synthetic TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic (vacated) TWA: 2.5 mg/m <sup>3</sup> respirable dust natural (vacated) TWA: 10 mg/m <sup>3</sup> total dust synthetic (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m <sup>3</sup> TWA: 2.5 mg/m <sup>3</sup> respirable dust
Glass, oxide	TWA: 1 fiber/cm <sup>3</sup> respirable	-	

65997-17-3	fibers: length >5 µm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m <sup>3</sup> inhalable fraction		
Quartz 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> respirable fraction	TWA: 0.1 mg/m <sup>3</sup> (vacated)	IDLH: 50 mg/m <sup>3</sup> respirable dust TWA: 0.05 mg/m <sup>3</sup> respirable dust
Phenol 108-95-2	TWA: 5 ppm S*	TWA: 5 ppm TWA: 19 mg/m <sup>3</sup> (vacated) TWA: 5 ppm (vacated) TWA: 19 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 250 ppm Ceiling: 15.6 ppm 15 min Ceiling: 60 mg/m <sup>3</sup> 15 min TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

**Other Exposure Guidelines** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** If splashes are likely to occur. Wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and body protection** Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

<b>Physical state</b>	Granular	<b>Odor</b>	Characteristic
<b>Appearance</b>	Black	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		
<b>Property</b>	<b>Values</b>	<b>Remarks</b>	<b>Method</b>
<b>pH</b>	No data available	None known	
<b>Melting / freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	No data available	None known	
<b>Evaporation Rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit</b>	No data available		

<b>Lower flammability limit</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Specific Gravity</b>	No data available	None known
<b>Water Solubility</b>	Negligible	
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive properties</b>	No data available	
<b>Oxidizing properties</b>	No data available	

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

Strong acids. Strong oxidizing agents. Strong bases. Halogens.

**Hazardous Decomposition Products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. (based on components). May cause redness, itching, and pain.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components). Prolonged contact may cause redness and irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause

irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phenol-formaldehyde polymer 9003-35-4	> 5 g/kg ( Rat )	> 2 g/kg ( Rat )	-
Methenamine 100-97-0	= 9200 mg/kg ( Rat )	-	-
Quartz 14808-60-7	= 500 mg/kg ( Rat )	-	-
Phenol 108-95-2	= 317 mg/kg ( Rat ) = 340 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 h

### Information on toxicological effects

**Symptoms** Erythema (skin redness). May cause redness and tearing of the eyes. Itching. Rashes. Hives.

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

**Sensitization** May cause sensitization in susceptible persons. May cause sensitization by skin contact.

**Mutagenic Effects** There is no data for this product. Contains a known or suspected mutagen.

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

Chemical name	ACGIH	IARC	NTP	OSHA
Glass, oxide 65997-17-3		Group 3		
Quartz 14808-60-7	A2	Group 1	Known	X
Phenol 108-95-2		Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**Reproductive toxicity** No information available.

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

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

**Chronic Toxicity** Contains a known or suspected carcinogen. Avoid repeated exposure.

**Target Organ Effects** None known.

**Aspiration Hazard** No information available.

### Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)**

6,800.00 mg/kg

**ATEmix (dermal)**

42,840.00 mg/kg (ATE)

**ATEmix (inhalation-gas)**

47,600.00 ppm (4 hr)

**ATEmix (inhalation-dust/mist)**

34.07 mg/L

**ATEmix (inhalation-vapor)**

204.00 ATEmix



## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methenamine 100-97-0		96h LC50: 44600 - 55600 mg/L (Pimephales promelas)		48h EC50: 29868 - 43390 mg/L
Phenol 108-95-2	96h EC50: = 46.42 mg/L (Pseudokirchneriella subcapitata) 96h EC50: 0.0188 - 0.1044 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 187 - 279 mg/L (Desmodesmus subspicatus)	96h LC50: 11.9 - 50.5 mg/L (Pimephales promelas) 96h LC50: 20.5 - 25.6 mg/L (Pimephales promelas) 96h LC50: = 32 mg/L (Pimephales promelas) 96h LC50: 5.449 - 6.789 mg/L (Oncorhynchus mykiss) 96h LC50: 7.5 - 14 mg/L (Oncorhynchus mykiss) 96h LC50: 4.23 - 7.49 mg/L (Oncorhynchus mykiss) 96h LC50: 5.0 - 12.0 mg/L (Oncorhynchus mykiss) 96h LC50: 11.9 - 25.3 mg/L (Lepomis macrochirus) 96h LC50: = 11.5 mg/L (Lepomis macrochirus) 96h LC50: = 13.5 mg/L (Lepomis macrochirus) 96h LC50: 34.09 - 47.64 mg/L (Poecilia reticulata) 96h LC50: = 31 mg/L (Poecilia reticulata) 96h LC50: = 27.8 mg/L (Brachydanio rerio) 96h LC50: = 0.00175 mg/L (Cyprinus carpio) 96h LC50: 33.9 - 43.3 mg/L (Oryzias latipes) 96h LC50: 23.4 - 36.6 mg/L (Oryzias latipes)	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min	48h EC50: 4.24 - 10.7 mg/L 48h EC50: 10.2 - 15.5 mg/L

### Persistence and Degradability

No information available.

### Bioaccumulation

Chemical name	Log Pow
Phenol 108-95-2	1.5

### Other adverse effects

No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal methods** Dispose of contents/containers in accordance with local regulations.

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

This product contains one or more substances that are listed with the State of California as a hazardous waste.

**14. TRANSPORT INFORMATION**

**DOT** NOT REGULATED  
**Proper Shipping Name** NON REGULATED  
**Hazard Class** N/A

**TDG** NOT REGULATED

**MEX** NOT REGULATED

**ICAO** NOT REGULATED

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

**IMDG/IMO** NOT REGULATED

**RID** NOT REGULATED

**ADR** NOT REGULATED

**ADN** NOT REGULATED

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Complies  
**DSL** All components are listed either on the DSL or NDSL.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Phenol - 108-95-2	108-95-2	< 1%	1.0

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** Yes

Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol 108-95-2	1000 lb	X	X	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Phenol 108-95-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Quartz - 14808-60-7	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Graphite 7782-42-5	X	X	X		
Methenamine 100-97-0	X				
Quartz 14808-60-7	X	X	X		X
Phenol 108-95-2	X	X	X	X	X

**International Regulations****Mexico****National occupational exposure limits**

Component	Carcinogen Status	Exposure Limits
Graphite 7782-42-5 ( 30 - 40% )		Mexico: TWA= 2 mg/m <sup>3</sup>
Quartz 14808-60-7 ( 0 - 3% )		Mexico: TWA= 0.1 mg/m <sup>3</sup>
Phenol 108-95-2 ( < 1% )		Mexico: TWA 5 ppm Mexico: TWA 19 mg/m <sup>3</sup> Mexico: STEL 10 ppm Mexico: STEL 38 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens

**Canada****WHMIS Hazard Class**

Not determined

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Hazards - Personal Protection</b> X
<b>HMIS</b>	<b>Health Hazards</b> 2 *	<b>Flammability</b> 0	<b>Physical Hazard</b> 0	

**Chronic Hazard Star Legend** \* = Chronic Health Hazard

<b>Prepared By</b>	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
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<b>Revision Date</b>	01-Mar-2017
<b>Revision Note</b>	No information available

#### Disclaimer

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**