

SAFETY DATA SHEET

This safety data sheet complies with the requirements of: JIS Z 7253:2012, Japan

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Japan / English

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name KonductoMet

20-3375-016, 20-3375-400 Product Code(s)

(M)SDS Number 1341068_J

Other means of identification

Synonyms No information available

No information available Registration Number(s)

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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Japan: +81 36 8908677

2. HAZARDS IDENTIFICATION

GHS Classification

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 2
Category 2	



Specific target organ toxicity (repeated exposure)

Category 2

Category 2 Kidneys, Respiratory system, blood system, Cardiovascular system, Central nervous system, Digestive System, Liver, Spleen, Thymus.

Label elements



Signal word

Danger

Hazard statements

H317 - May cause an allergic skin reaction

H350 - May cause cancer

H373 - May cause damage to organs through prolonged or repeated exposure

H373 - May cause damage to the following organs through prolonged or repeated exposure: Kidneys, Respiratory system, blood system, Cardiovascular system, Central nervous system, Digestive System, Liver, Spleen, Thymus.

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

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

Specific measures (see supplemental first aid instructions on this label)

Specific treatment (see supplemental first aid instructions on this label)

IF exposed or concerned: Call a POISON CENTER or doctor

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of water and soap

Call a POISON CENTER or doctor if you feel unwell

Take off immediately all contaminated clothing and wash it before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

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	ISHL No.	CAS-No
		Substances		
Phenol-formaldehyde polymer	30 - 40%	No information available	No information available	9003-35-4
Graphite	30 - 40%	No information available	No information available	7782-42-5
Glass, oxide	20 - 30%	No information available	No information available	65997-17-3
Methenamine	0 - 10%	(5)-1155	Present	100-97-0
Quartz	0 - 3%	(1)-548	Present	14808-60-7
C.I. Solvent Black 7	0 - 3%	No information available	No information available	8005-02-5
Phenol	< 1%	(3)-481	Present	108-95-2

Pollutant Release and Transfer Registry (PRTR)

Not applicable.

Chemical name	Weight-%	Class	Cabinet order number	Relevant substance, conversion factor
Methenamine	0 - 10%	Class I designated chemical	1-258	
100-97-0		substance		
Phenol	< 1%	Class I designated chemical	1-349	
108-95-2		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 (%)		
Quartz	ISHL Notifiable Substances	0.1		
14808-60-7				
Phenol	ISHL Notifiable Substances	0.1		
108-95-2				

Poisonous and Deleterious Substances Control Law

Chemical name	Poisonous and Deleterious Substances	Threshold Values (%)
Phenol 108-95-2	Deleterious	>5

4. FIRST AID MEASURES

First aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is

required. IF exposed or concerned: Get medical advice/attention.

Inhalation May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration.

Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical advice/attention. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel

should) give oxygen.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact



lenses, if present and easy to do. Continue rinsing.

Skin contact Get immediate medical advice/attention. Wash off immediately with soap and plenty of

water while removing all contaminated clothes and shoes. May cause an allergic skin

reaction.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Get immediate medical

advice/attention. May produce an allergic reaction.

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or

wheezing. Itching. Rashes. Hives. Difficulty in breathing.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See section 8 for more

information. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with

a one-way valve or other proper respiratory medical device.

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties Not flammable.

surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the

chemical

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

May cause sensitization by skin contact.

Special Extinguishing Media Cool drums with water spray.

Special protective equipment for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak. Avoid generation of dust. Do not breathe dust.

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

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

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.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections 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. Take off contaminated clothing and wash before reuse. Provide extract ventilation to points where emissions occur. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Do not breathe dust. Avoid generation of dust.

Handle product only in closed system or provide appropriate exhaust ventilation.

Storage

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach

of children. Store locked up.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Do not breathe dust. Take off contaminated clothing and wash before reuse.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Graphite 7782-42-5	-	-	TWA: 2 mg/m³ respirable particulate matter all forms except graphite fibers
Glass, oxide 65997-17-3	-	-	TWA: 1 fiber/cm3 respirable 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/m³ inhalable fraction
Quartz 14808-60-7	TWA: 0.03 mg/m ³	-	TWA: 0.025 mg/m³ respirable fraction
Phenol 108-95-2	TWA: 5 ppm TWA: 19 mg/m³ S*	-	TWA: 5 ppm S*

Biological occupational exposure

limits

Not applicable

Engineering controls Showers

Eyewash stations Ventilation systems.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear

safety glasses with side-shields. None required for consumer use.



Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Hand protection Wear suitable gloves. Impervious 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 Granular
Appearance Black
Odor Characteristic

Color No information available
Odor Threshold No information available

Property Values Remarks Method

pН No data available None known Melting / freezing point No data available None known Boiling point / boiling range None known No data available Flash Point No data available 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 pressureNo data availableNone knownVapor densityNo data availableNone knownRelative densityNo data availableNone known

Water Solubility Negligible

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 None known **Viscosity** No data available

Explosive propertiesNo information available **Oxidizing properties**No information available

Other Information

Softening Point No information available Molecular Weight No information available

VOC Content (%) Not applicable

Liquid DensityNo information availableBulk DensityNo information availableParticle SizeNo information availableParticle Size DistributionNo 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.

Conditions to avoid Excessive heat.

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

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. May cause sensitization in

susceptible persons. (based on components). May cause irritation of respiratory tract. Toxic

by inhalation.

Eye contact Specific test data for the substance or mixture is not available. Irritating to eyes. (based on

components). Causes eye irritation.

Skin contact Specific test data for the substance or mixture is not available. Repeated or prolonged skin

contact may cause allergic reactions with susceptible persons. (based on components). May cause sensitization by skin contact. Causes skin irritation. Toxic in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. May cause additional affects

as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting

and diarrhea. Harmful if swallowed. (based on components).

Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling

of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. Itching. Rashes. Hives. Redness. May cause redness and

tearing of the eyes. Difficulty in breathing.

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 1,667.00 mg/kg
ATEmix (dermal) 630.00 mg/kg
ATEmix (inhalation-gas) 700.00 mg/L
ATEmix (inhalation-dust/mist) 0.50 mg/L
ATEmix (inhalation-vapor) 3.00 mg/L

Unknown acute toxicity

90 % 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
Phenol-formaldehyde polymer	> 5 g/kg (Rat)	> 2 g/kg (Rat)	
9003-35-4			
Methenamine	= 9200 mg/kg (Rat)		
100-97-0			
Quartz	= 500 mg/kg (Rat)		



14808-60-7			
Phenol	= 317 mg/kg (Rat) = 340	= 630 mg/kg (Rabbit)	= 316 mg/m ³ (Rat) 4 h
108-95-2	mg/kg (Rat)		

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

Skin corrosion/irritationClassification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Irritating to eyes.

Respiratory or skin sensitization May cause sensitization by inhalation. May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity Classification based on data available for ingredients. Contains a known or suspected

carcinogen.

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

Chemical name	Carcinogenicity	IARC
Glass, oxide		Group 3
65997-17-3		
Quartz	1A	Group 1
14808-60-7		-
Phenol		Group 3
108-95-2		·

Legend:

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity Classification based on data available for ingredients. Contains a known or suspected

reproductive toxin.

STOT - single exposure Based on the classification criteria of the Globally Harmonized System as adopted in the

country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). May cause damage to organs if swallowed. May cause damage to organs in contact with skin.

May cause damage to organs if inhaled.

STOT - repeated exposure May cause damage to organs.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Percentage for unknown hazards 92 % of the mixture consists of component(s) of unknown hazards to the aquatic

environment.

Ecotoxicity .

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to	Daphnia Magna (Water
			Microorganisms	Flea)
Methenamine		96h LC50: 44600 -	-	48h EC50: 29868 -
		55600 mg/L		43390 mg/L
		(Pimephales promelas)		-
Phenol	96h EC50: = 46.42	96h LC50: 11.9 - 50.5	EC50 21 - 36 mg/L 30	48h EC50: 4.24 - 10.7



mg/L	mg/L (Pimephales	min	mg/L 48h EC50: 10.2
(Pseudokirchneriella	promelas) 96h LC50:	EC50 = 23.28 mg/L 5	- 15.5 mg/L
subcapitata) 96h	20.5 - 25.6 mg/L	min	
EC50: 0.0188 -	(Pimephales promelas)	EC50 = 25.61 mg/L 15	
0.1044 mg/L	96h LC50: = 32 mg/L	min	
(Pseudokirchneriella	(Pimephales promelas)	EC50 = 28.8 mg/L 5	
subcapitata) 72h	96h LC50: 5.449 -	min	
EC50: 187 - 279 mg/L	6.789 mg/L	EC50 = 31.6 mg/L 15	
(Desmodesmus	(Oncorhynchus mykiss)	min	
subspicatus)	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)		

Persistence and Degradability

No information available.

Bioaccumulation

Component Information

Component information				
Chemical name	Log Pow			
Phenol	1.5			

Mobility in soilNo information available.MobilityNo information available.Other adverse effectsNo information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused Dispose of in accordance with local regulations. Dispose of waste in accordance with



products environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

IMDG NOT REGULATED

ADR NOT REGULATED

Environmental hazard Yes

IATA NOT REGULATED NON REGULATED NON REGULATED

<u>Japan</u>
Hazard Class N/A

15. REGULATORY INFORMATION

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

National Regulations

<u>Japan</u>

Pollutant Release and Transfer Registry (PRTR)

See section 3 for more information

Industrial Safety and Health Law

Harmful Substances Whose Names Are to be Indicated on the Label

Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57 and ISHL Ordinance Article 33)

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)

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

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

Chemical name	Chemical Substances Control Law
Phenol	Priority assessment chemical substance
108-95-2	·

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

Water Pollution Control Act

Designated substance may cause adverse effects to human health or the living environment per Water Pollution Control Law article 2 and Enforcement Order article 3-3

Sewerage Act

Sewerage Act article 12-2 and Enforcement Order article 9-4

Waterworks (Water Supply) Act

Waterworks (Water Supply) Act article 4 legally binding water quality standards



Air Pollution Control Law

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

Specified substances subject to measures in event of an accident per Air Pollution Control Law article 17, paragraph 1 and Enforcement Order article 10

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.

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 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



