

CANON OPTRON INC.

SDS Number: EH08

Product Name: PHILICFINE HP-U

SAFETY DATA SHEET

rev. 6.5 Date of Issue 2016/4/26

Revised Date 2018/6/6

SECTION 1 Chemicals and company identification

Chemical identifier	PHILICFINE HP-U
SDS number	EH08
Company name	CANON OPTRON INC.
Address	1744-1, Kanakubo, Yuki-shi, Ibaraki-ken, 307-0015 Japan
Section name	Internal Control Promotion Div.
Telephone number	+81-296-21-3700 (Sales Dept.)
Fax number	+81-296-21-3770
Emergency telephone number	+81-296-21-3700 (Sales Dept.)
Recommended uses and restrictions on use	Vacuum deposition material

SECTION 2 Hazards identification

GHS Classification (A classification by JIS Z 7252 "classification methods such as chemical substances based on GHS")

Physicochemical hazard	Explosives	Classification not possible	
	Flammable gases (including chemically unstable gases)	Not applicable	
	Aerosols	Not applicable	
	Oxidizing gases	Not applicable	
	Gases under pressure	Not applicable	
	Flammable liquids	Not applicable	
	Flammable solids	Classification not possible	
	Self-reactive substances and mixtures	Classification not possible	
	Pyrophoric liquids	Not applicable	
	Pyrophoric solids	Classification not possible	
	Self-heating substances and mixtures	Classification not possible	
	Substances and mixtures which, in contact with water, emit flammable gases	Classification not possible	
	Oxidizing liquids	Not applicable	
	Oxidizing solids	Classification not possible	
	Organic peroxides	Classification not possible	
	Corrosive to metals	Classification not possible	
	Health hazard	Acute toxicity (oral)	Classification not possible
		Acute toxicity (dermal)	Classification not possible
		Acute toxicity (inhalation)	Classification not possible
Skin corrosion/irritation		Classification not possible	

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	Eye damage/eye irritation	Classification not possible
	Respiratory sensitization	Classification not possible
	Skin sensitization	Classification not possible
	Germ cell mutagenicity	Classification not possible
	Carcinogenicity	Classification not possible
	Reproductive toxicity	Classification not possible
	Effects on or via lactation	Classification not possible
	Specific target organ toxicity(single exposure)	Category 3(Respiratory tract irritation)
	Specific target organ toxicity(repeated exposure)	Category 1
	Aspiration hazard	Classification not possible
Environmental hazard	Hazard to the aquatic environment(acute hazard)	Classification not possible
	Hazard to the aquatic environment(long-term hazard)	Classification not possible
	Hazard to the ozone layer	Classification not possible

Label element

Pictogram (Symbol)	Exclamation	Health Hazard
		
Signal word	Danger	
Hazard statement	May cause drowsiness or dizziness. Causes damage to organs through prolonged or repeated exposure.	
Precautionary statement		
【Safety measures】	Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.	
【First-aid measures】	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor/physician if you feel unwell. Get medical advice/attention if you feel unwell.	
【Storage】	Store in a well-ventilated place. Keep container tightly closed. Store locked up.	
【Disposal】	Dispose of contents/container in accordance with national regulations.	

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SECTION 3 Composition and information ingredients

Substance/Mixture	Mixture	
Chemical name or generic name	<i>Aluminium oxide</i>	<i>Zirconium oxide</i>
Chemical formula	<i>Al₂O₃</i>	<i>ZrO₂</i>
CAS No.	<i>1344-28-1</i>	<i>1314-23-4</i>
Concentration or concentration range	99.9%<	
TSCA Inventory	<i>Aluminum oxide (Al₂O₃)</i>	<i>Zirconium oxide (ZrO₂)</i>
EINECS number	<i>215-691-6</i>	<i>215-227-2</i>
Radioactive information	Radioactive substances are not used as the material. Therefore, there is no reason that ionizing radiation would be generated.	

SECTION 4 First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin	Remove/Take off immediately all contaminated clothing. Wash with a large amount of water and soap for 15 minutes or more. When symptoms such as blistering or pain appear, undergo a diagnosis by a physician according to the necessity.
Eye	Immediately wash your eyes with pure water for 15 minutes or more. If you are using contact lenses, remove and wash unless they are attached. Be certain to undergo a diagnosis by a physician.
Ingestion	Rinse your mouth out immediately. Be certain to undergo a diagnosis by a physician.
Protection of first aiders	Rescuers should wear protective equipment such as protective eyewear and protective gloves.

SECTION 5 Fire-fighting measures

Extinguishing media	This product itself is not flammable.
Extinguishing media are unsuitable	No data
Specific hazards	No data
Specific extinguishing methods	In the case of a fire in the periphery, the portable container is quickly moved to a safe place.
Protection of fire-fighters	Wear suitable protective equipment (gloves, glasses and a mask) in fire-fighting.

SECTION 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures	Protection equipment (specified as those in which the properties of the product are suitable) worn during operation so that airborne droplets, etc., do not adhere to the skin and dusts and gases are not absorbed.
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Environmental precautions	The leakage may not directly flow into rivers or sewage.
Methods and materials for containment and methods and materials for cleaning up	The leaked material is scooped up, or swept up and gathered to be recovered in a paper bag or a drum. After recovery, a small amount of the residue is absorbed in sediment, sawdust, etc.
Secondary disaster prevention measures	No data

SECTION 7 Handling and storage precautions

Handling

Technical measures After handling wearing suitable protection equipment such as protective glasses and protective gloves, your hands and face should be thoroughly washed, and gargling should be performed.

Safety handling precautions Handling work must be practiced in a room where there is a local or total ventilation facility.

Storage

Safe storage conditions Seal and store the container in well-ventilated areas.

Safety packaging material No data

SECTION 8 Exposure controls and personal protection

Al₂O₃ZrO₂

Permissible concentration

ACGIH

(Particulate asbestos-free, less than 1% crystalline silica) TLV-TWA 10mg/m³ (2005 edition)

*TWA 5 mg/m³ (as Zr)
STEL 10 mg/m³ (as Zr)
(2005 edition)*

Engineering controls

Use sealed devices, equipment, or a local exhaust ventilation as much as possible.

Personal protective equipment

Respiratory protection	Dustproof mask
Hand protection	Protective gloves
Eye protection	Dustproof glasses
Skin and body protection	Protective clothing

SECTION 9 Physical and chemical properties

Appearance

Physical state	Solid
Form	Granular
Colour	White
Odour	None

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	<u><i>Al2O3</i></u>	<u><i>ZrO2</i></u>
pH	<i>No data available</i>	<i>No data available</i>
Melting point/Freezing point	<i>2072°C</i>	<i>2700°C</i>
Boiling point/Initial boiling point and boiling range	<i>2980°C</i>	<i>4300°C</i>
Flash point	<i>Noncombustibility</i>	<i>None</i>
Evaporation rate	<i>Not applicable</i>	<i>No data available</i>
Flammability (solid, gas)	<i>Noncombustibility</i>	<i>No data available</i>
Explosive limits		
LEL	<i>No data available</i>	<i>None</i>
UEL	<i>No data available</i>	<i>None</i>
Vapour pressure	<i>0.073Pa (mp.)</i>	<i>No data available</i>
Vapour density (air = 1)	<i>No data available</i>	<i>No data available</i>
Specific gravity (Relative density)	<i>3.97</i>	<i>5.73</i>
(Density)	<i>*2.20 as PHILICFINE HP-U (bulk density in granular state)</i>	
Solubility		
Water	<i>Insoluble</i>	<i>Insoluble</i>
Other solvents	<i>The slightly soluble in non-polar organic solvent</i>	<i>No data available</i>
n-octanol/Water partition coefficient	<i>No data available</i>	<i>No data available</i>
Auto-ignition temperature	<i>Noncombustibility</i>	<i>No data available</i>
Decomposition temperature	<i>No data available</i>	<i>No data available</i>
Viscosity (Coefficient of viscosity)	<i>No data available</i>	<i>No data available</i>
Other data	<i>None</i>	<i>None</i>

SECTION 10 Stability and reactivity

	<u><i>Al2O3</i></u>	<u><i>ZrO2</i></u>
Reactivity	<i>No data available</i>	<i>No data available</i>
Chemical stability	<i>Stability</i>	<i>It is stable in storage conditions and normal handling.</i>
Hazardous reactions	<i>Almost no</i>	<i>No data available</i>
Conditions to avoid	<i>Generation of dust, diffusion.</i>	<i>Heating, sunlight</i>
Incompatible materials	<i>None</i>	<i>Strong oxidant</i>
Hazardous decomposition products	<i>None</i>	<i>No data available</i>

SECTION 11 Hazard information

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	<u>Al2O3</u>	<u>ZrO2</u>
Acute toxicity(oral)	Oral Rat LD50> 5000mg/kg	No data available
Acute toxicity(dermal)	No data available	No data available
Acute toxicity(inhalation)	Mouse LD50:> 3,600 mg / kg (ip)	Intraperitoneal – Mouse LD50: 87mg/kg
Skin corrosion/irritation	No data available	If inhaled, to stimulate the respiratory system and mucous membranes.
Eye damage/eye irritation	No data available	No data available
Respiratory sensitization/Skin sensitization	No data available	No data available
Germ cell mutagenicity	Was mutagenicity test has not been carried out, even in the mutagenicity test Ames test is only the (negative), and can not be classified by the lack of data. Was mutagenicity test has not been carried out, even in the mutagenicity test Ames test is only the (negative), and can not be classified by the lack of data.	No data available
Carcinogenicity	ACGIH are classified into (a substance that can not be classified as a human carcinogen) group A4.	No data available
Reproductive toxicity	No data available	No data available
Specific target organ toxicity(single exposure)	May cause respiratory irritation	No data available
Specific target organ toxicity(repeated exposure)	TLV-TWA 10mg/m3(An asbestos non-implication, the fine particles of under crystal silica 1%) (A 2005 version)	No data available
Aspiration hazard	TLV-TWA 10mg/m3(An asbestos non-implication, the fine particles of under crystal silica 1%) (A 2005 version)	No data available
Others	None	

SECTION 12 Ecological information

	<u>Al2O3</u>	<u>ZrO2</u>
Ecotoxicity		
Fish	No data available	No data available
Crustaceantoxicity(single exposure)	No data available	No data available
Algae	No data available	No data available
Other organisms	No data available	No data available
Persistence and degradability	No data available	No data available
Bioaccumulative potential	No data available	No data available
Mobility in soil	No data available	No data available

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Hazard to the ozone layer	<i>No data available</i>	<i>No data available</i>
Others	<i>No data available</i>	<i>No data available</i>

SECTION 13 Notes on disposal

Waste from residues	Process is contracted to industrial waste disposers who received approval of a prefectural governor.
Contaminated container and contaminated packaging	The container is recycled after being cleaned, or is appropriately processed according to the standards of related laws and regulations.

SECTION 14 Transport information

	<u><i>Al₂O₃</i></u>	<u><i>ZrO₂</i></u>
International regulation		
UN classification	<i>Not applicable</i>	<i>Not applicable</i>
UN number	<i>None</i>	<i>None</i>
UN proper shipping name	<i>None</i>	<i>None</i>
Packing group	<i>Not applicable</i>	<i>Not applicable</i>
Japanese laws and regulations	<i>No land Regulatory Information Regulatory Maritime regulatory information non-hazardous materials Aviation regulatory information non-hazardous materials</i>	<i>None</i>
Conditions and specific safety measures of transport	<i>During transport, the loading container is broken or corroded, so that there is no leak, and to reliably prevent the collapse of cargo.</i>	<i>No data available</i>

SECTION 15 Regulatory information (Japan)

	<u><i>Al₂O₃</i></u>	<u><i>ZrO₂</i></u>
PRTR Law	<i>None</i>	<i>None</i>
Occupational Safety and Health Law	<i>There is it in the case of an application or an application</i>	<i>There is it in the case of an application or an application</i>
Poisonous and Deleterious Substances control Law	<i>None</i>	<i>None</i>
Explosives control Law	<i>None</i>	<i>None</i>
High-pressure gas security Law	<i>None</i>	<i>None</i>
Fire fighting Law	<i>None</i>	<i>None</i>
Chemical substances control Law	<i>None</i>	<i>None</i>
Ship safety Law	<i>None</i>	<i>None</i>
Aviation Law	<i>None</i>	<i>None</i>
Prevention of marine pollution Law	<i>None</i>	<i>None</i>
Pneumoconiosis Law	<i>There is it in the case of an application or an application</i>	<i>None</i>

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Note

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

SECTION 16 Other information

The Safety Data Sheet (SDS) has been prepared based on currently available materials, information and data, and may be revised based on new information. Further, the important points in the SDS are made for the purpose of normal handling.

When handling the user product in a specialized manner, take the appropriate safety measures for the application or method.

Further, Canon Optron Inc. has paid sufficient attention to the described contents of the SDS, but does not guarantee the accuracy of its contents.

Literature Reference**[References]**

Industrial Safety and Health Act All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)

Poisonous and Deleterious Substances Control Act All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)

Pollutant Release and Transfer Register All Data of MSDS Target Substances: The Chemical Daily Co., Ltd (2003)

Recommendations for Allowable Concentrations (Fiscal 2017): Japan Society for Occupational Health Journal of Occupational Health, Vol. 59 2017

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National Institute of Technology and Evaluation Homepage

Japan Advanced Information Center of Safety and Health Homepage

Ministry of Health, Labour and Welfare Homepage

[Regulatory review Tools]

ezCRIC (Japan Chemical Database Ltd)