SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

M T J

1. Product and company identification

Product name : MTJ

Manufacturer Information :KATAOKA SENZAI CO.,LTD.

3-1, Fujisato-cho, Tushima, Aichi, Japan

Contact person :info@heatpipe.co,jp

Telephone :+81-567-24-5963

Telefax :+81-567-25-7511

Emergency telephone number :+81-567-24-5963

2. Hazards identification

GHS Classification

Environmental Hazards:

Acute hazards to the aquatic environment	Category 1
Chronic hazards to the aquatic environment	Category 1

GHS label elements:

Pictograms:

Signal Word: Danger

Hazard Statement: Suspected of damaging the unborn child.

Suspected of damaging fertility.

Causes damage to organs.

Causes damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe

dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF exposed or concerned: Call a POISON CENTER/doctor. Collect spillage.

Storage: Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards which do not result in classification:

none

3. Composition/information on ingredients

Chemical nature: Silicone compound

Mixtures

Chemical Identity	% by weight	CAS number
Zinc oxide	>=50 - <60	1314-13-2
Aluminum oxide	>=10 - <20	1344-28-1

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First aid measures

Inhalation: Move to fresh air. Get medical attention if symptoms persist.

Skin Contact: Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Ingestion: If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice Never give liquid to an unconscious person.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

5. Fire-fighting measures

Extinguishing media: Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media: No data available.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Keep unprotected persons away. Remove sources of ignition. Use personal protective equipment.

Keep upwind. Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

Methods or materials for containment and cleaning up: Put in an empty container for recovery after preventing spill by sand or sandbags,if the amount of spill is large. Put in an empty container for recovery after wiping or soaking up in an inert material,if the amount of spill is small.

Prevention of secondary hazards: Remove sources of ignition.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): Provide adequate ventilation. Provide eyewash station and safety shower.

Safe handling advice: Wear suitable protective clothing, gloves and eye/face protection. Use only in well-ventilated areas. Contact avoidance measures: Eyewash bottle with clean water. Use only in well-ventilated areas. When using do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

Hygiene measures: Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

Storage

Safe storage conditions: Store in a dark, cool place indoors, with container tightly closed.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits:

Chemical name	Type	Exposure Limit Values	Regulation Sources
Zinc oxide - Respirable dust.	TWA	1 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
Zinc oxide - Total dust.	TWA	4 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
Zinc oxide - Dust.	TLV	0.025	Japan. OELs - ISHL. (Workplace

Chemical name	Type	Exposure Limit Values	Regulation Sources
		mg/m3	Environment Assessment Standards), as amended (04 2020)
Aluminum oxide - Respirable dust.	TWA	0.5 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
Aluminum oxide - Total dust.	TWA	2 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
Aluminum oxide - Dust.	TLV	0.025 mg/m3	Japan. OELs - ISHL. (Workplace Environment Assessment Standards), as amended (04 2020)

Personal protective equipment (ppe)

Respiratory Protection: No protection is ordinarily required under normal conditions of use and with adequate ventilation.

Hand Protection: Chemical resistant gloves

Eye Protection: Safety glasses with side shields

Skin and Body Protection: Chemical resistant clothing Wear rubber boots.

9. Physical and chemical properties

Physical state: solid

Form: Paste

Color: White

Odor: Faint

Odor threshold No data available.

Melting point/freezing point No data available.

Initial boiling point and boiling range Not applicable

Flammability No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper: No data available.

Explosive limit - lower: No data available.

Flash Point 330 °C

Evaporation rate No data available.

Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
SADT	No data available.
pH	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water)Log Pow	No data available.
Vapor pressure	No data available.
Density	2.46 g/cm3 (20 °C)
Relative density	No data available.
Vapor density	No data available.

10. Stability and reactivity

Reactivity: No dangerous reaction if used as recommended.

Chemical Stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization does not occur.

Conditions to avoid: None known.

Incompatible Materials: The catalysis of strong acids or bases cause polymerization or decomposition.

Hazardous Decomposition Products:

Carbon Monoxide. Carbon dioxide Silicon dioxide. Metal oxides. This product may contain component(s) which could generate formaldehyde at approximately 300 degrees Fahrenheit (150'C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

11. Toxicological information

General information: This product is not tested.

Acute toxicity (list all possible routes of exposure)

Oral Product: Not classified for acute toxicity based on available data.

Components:

Zinc oxide LD 50 (Rat): > 5,000 mg/kg

Aluminum oxide No data available.

Dermal

Product: Not classified for acute toxicity based on available data.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Inhalation Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity Product: No data available.

Skin Corrosion/Irritation Product: No data available.

Components:

Zinc oxide (Rabbit): No skin irritation

Aluminum oxide No data available.

Serious Eye Damage/Eye Irritation

Product: No data available.

Components:

Zinc oxide (Rabbit): slightly irritating (not classified according to the German Dangerous Substances legislation)
No data available.

Aluminum oxide No data available.

Respiratory sensitization

Product : No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Skin sensitization

Product: No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Carcinogenicity

Product: No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Japan Society for Occupational Health: Carcinogen:

No carcinogenic components identified

Japan. ISHL Designated Carcinogen:

No carcinogenic components identified

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product: No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

In vivo Product: No data available.

Components:

Zinc oxide	No data available.
Aluminum oxide	No data available.

Reproductive toxicity Product : No data available.

Components:

Zinc oxide	No data available.
Aluminum oxide	No data available.

Specific Target Organ Toxicity - Single Exposure Product: No data available.

Components:

Zinc oxide	No data available.
Aluminum oxide	No data available.

Specific Target Organ Toxicity - Repeated Exposure Product: No data available.

Components:

Zinc oxide	No data available.
Aluminum oxide	No data available.

Aspiration Hazard Product: No data available.

Components:

Zinc oxide	No data available.
Aluminum oxide	No data available.

Other effects: None.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment

Fish Product: No data available.

Aquatic Invertebrates Product: No data available.

Toxicity to Aquatic Plants Product: No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Toxicity to microorganisms Product: No data available.

Components

Zinc oxide EC0 (Pseudomonas aeruginosa): 500 mg/l

Aluminum oxide No data available.

Chronic hazards to the aquatic environment

Fish

Product: No data available.

Aquatic Invertebrates Product: No data available.

Toxicity to Aquatic Plants Product: No data available.

Components:

Zinc oxide No data available.

Aluminum oxide No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio Product: No data available.

Bioaccumulative potential Bioconcentration Factor (BCF) Product: No data available.

Partition Coefficient n-octanol / water (log Kow) Product: No data available.

Mobility in soil: No data available.

Hazardous to the ozone layer: Not Regulated

Further Information: No data available.

13. Disposal considerations

General information: Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment. The generation of waste should be avoided or minimized wherever possible.

Disposal methods: Disposal should be made in accordance with federal, state and localregulations.

Contaminated Packaging: Dispose of as unused product.

14. Transport information

International regulations

IMDG - International Maritime Dangerous Goods Code

UN number or ID number	UN3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(zinc oxide)
Class	9
Packing Group	III
Label(s)	9
Subsidiary risk label Marine Pollutant	Yes
EmS No.	F-A; S-F

IATA

UN number or ID number: UN 3077

Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.(zinc oxide)

Transport Hazard Class(es):

Class: 9

Label(s): 9MI

Packing Group: III

Environmental Hazards: Environmentally hazardous

Marine Pollutant: Yes

National Regulations Domestic Standard : In compliance with domestic law

15. Regulatory information

Japan CSCL:

Priority Assessment Chemical Substances: Not Regulated

Monitoring Chemical Substances: Not Regulated

Law concerning Pollutant Release and Transfer Register:

Specified Class 1 substance(s): Not Regulated

Class 1 Substance(s): Not Regulated

Class 2 Substance(s): Not Regulated

Industrial Safety and Health Act:

Article 57-2 Regulated Substance(s): ZINC OXIDE; ALUMINUM OXIDE;

Article 57 Regulated Substance(s) subject to labeling: ZINC OXIDE ALUMINUM OXIDE

Organic Solvent Regulation Not Regulated

Specified Substances Regulation:

Class 1 designated chemical substances: Not Regulated

Class 2 designated chemical substances: Not Regulated

Class 3 designated chemical substances: Not Regulated

Poisonous and Deleterious Substances Control Act:

Specified poisonous substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Poisonous Substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Deleterious Substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Fire Service Law: Designated Combustible Material (Synthetic Resins) Keep away from fire

High Pressure Gas Safety Law: Not Regulated

Act on Prevention of Marine Pollution and Maritime Disaster: Not Regulated

Inventory Status:

Australia AICS:	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	y (positive listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	y (positive listing)	Remarks: None.
New Zealand Inventory of Chemicals:	y (positive listing)	Remarks: None.
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

16. Other information

History

Date of issue/Date of revision	:11/30/2021
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Version	:2.0
References	:

Notice to reader

This material is developed and manufactured for industrial applications only. For medical or other special applications, use after performing safety testing on the product and confirming safety. Never use for human applications such as implant, impregnation, or where a residue may possibly remain in the body.

Further Information

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.