

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMPANY NAME** : Hakko Corporation  
**ADDRESS** : 4-5, Shiokusa 2-chome, Naniwa-ku, Osaka, 556-0024 Japan  
**SECTION IN CHARGE** : Research & Development Center  
**EMERGENCY TELEPHONE** : 81-6-6561-3225 (FAX: 06-6568-0821)  
**NUMBER/REFERENCE** : Sales Division

**PRODUCT NAME:** Cleaning brush A (Brush made of resin)

**Model:** No. A1566

## 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION : : N/A

GHS LABEL ELEMENTS

PICTOGRAM OR SYMBOL : None

HAZARD INFORMATION : Intoxication has so far not become known provided that the product is handled appropriately.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Single substance or mixture : Single substance

Chemical name	Poly-m-phenyleneisophthalamide	Water
Ingredient and its content	94-100	0-6
Chemical formula	—	—
CAS No.	25765-47-3	7732-18-5
ENCS No.	7-1972	—

## 4. FIRST-AID MEASURES

- Inhalation** : If inhaling a large amount of fiber or dust coming from the product, immediately go to fresh air. Seek medical attention if coughing or respiratory discomfort occurs. Ventilate the affected area with fresh air.
- Skin contact** : No adverse effect occurs in most instances. However, it is recommend to wear protective clothing because contacting with skin may in some rare cases cause itching sensation. If there is a sense of discomfort due to the product, wash the affected area with soap and a plenty of fresh water. Seek medical attention if the symptom persists.
- Eye contact** : Immediately wash eyes with a plenty of water with due care to prevent damage to eyeballs. Seek medical attention if foreign body sensation persists.
- Ingestion** : Gargle out with water. Seek medical attention if required.

## 5. FIRE FIGHTING MEASURES

The fiber is intrinsically incombustible, but burns if exposed to a fire source. Shutting off the fire source usually causes flame to disappear, but the flame may continue in certain situations. The fiber has no risk of explosion. Physical and chemical properties including flash point and explosion limits are described in section 9.

### FIRE FIGHTING PROCEDURE

- EXTINGUISHING MEDIA** : Water, fire foam, carbon dioxide gas, dry chemicals
- Special fire fighting procedures** : Water is inappropriate for electrical fire.
- Special hazard** : Fiber combustion may evolve carbon monoxide, carbon dioxide and nitrogen oxide, and a trace quantity of cyanide, ammonium, aliphatic hydrocarbon and other toxic gases depending on combustion conditions.
- Protection of fire fighters** : Work from the windward side. Wear protective gear including special clothing and a respirator.

## 6. ACCIDENTAL RELEASE MEASURES

- Precautions, Measures against secondary damage
- Personal protection** : Do not inhale dust particles. See section 8 for protective measures.
- Environmental precautions** : Do not drain the fiber to a sewage system, as it is non-biodegradable. Dispose of the fiber in a solid waste disposal facility.
- Measures against secondary damage** : Nothing particular
- Removing procedures** : Prior to commence cleaning, see section 5 "Fire fighting measures" and section 7 "Handing and storage". When dust particles are suspended in air, wait until they are settled down. Then wear protective gear such as a respirator and use a vacuum cleaner or broom to perform cleaning. Do not use a broom in dry conditions. Do not use an air jet blower.

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## 7. HANDLING & STORAGE

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### Handling

Handling precautions : Do not touch the rotating fiber with bare hand. When circumstances necessitate touching the rotating fiber, be sure to wear special protective gear and/or jig. Failure to do so may cause cuts or injuries. If dust particles or finishing agent particles fly due to contact of the rotating fiber with the guide or roller, install a ventilation or local ventilation system.

Protection against ingestion : N/A

### Storage

Storage conditions

Storage Precautions : Store the product away from direct sunlight, high temperature and high humidity to prevent deterioration in quality.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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PROTECTIVE FACILITIES : Isolation, enclosure, exhaust, ventilation and/or dust collection systems are recommended as a measure against airborne fiber dust.

### Protective gear

Protective gear for respiratory : Wear a respirator if particles irritating to nose or throat may be suspended.

Hand protection : Wear protective gloves.

Eyes and face protection : Be sure to wear protective goggles in the vicinity of a high-speed rotating object.

Skin and body protection : Do not touch a high-speed rotating object. Doing so may cause cuts or injuries.

ALLOWABLE CONCENTRATION : Exposure limits for the fiber have not been established as shown below:

Occupational Health and Safety Law : None

Society for Occupational Health : None

OSHA (Occupational Health and Safety Administration) : None

PEL (Permissible Exposure Limit defined by the OSHA) : None

ACGIH (American Conference of Governmental Industrial Hygienists) : None

TLV (Threshold Limit Value) : None

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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PHYSICAL PROPERTIES

APPEARANCE	: Brush
Color	:
Odor	: Slight
pH	: N/A
Boiling point/range	: None
Melting point/range	: Infusible
Decomposition point	: Approx. 400°C (TGA, in air)
Flash point	: 615°C
Ignition point	: Not ignited above 800°C
Explosion range – Lower limit (%)	: No explosion limit
Explosion range – Upper limit (%)	: No explosion limit
Vapor pressure	: N/A
density	: 1330 kg/m <sup>3</sup> (1.33 g/cm <sup>3</sup> )
Solubility in water	: Insoluble
Solubility (in solvents)	: Insoluble except in some solvents
LOI (Limited Oxygen Index)	: 27 or more
Explosion limit	: None
Spontaneous ignition point	: None

## 10. STABILITY AND REACTIVITY

Stability	: Stable in room temperature and normal storage conditions
Adverse reactivity	: Aromatic polyamide is reactive with strong oxidizers.
Conditions to avoid	:
Hazardous decomposition products	: The fiber is not decomposed in room temperature. However, decomposition of the fiber in high temperatures produces carbon dioxide and carbon monoxide, and a trace quantity of nitrogen oxide and hydrocyanic acid.
Other information	: Self-polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

Oral	: LD50 (rat): >5000 mg/kg
Inhalation	: Airborne materials such as fiber dust and fly ash may adhere to nose or throat during respiration. Failure to install protective facilities or wear protective gear against airborne materials may irritate the respiratory system, resulting in a coughing like symptom.
Percutaneous	: Contact with the fiber may cause skin irritation in rare cases.

### IRRITANCY

Eye	: Fiber dust particles and finishing agent mist may cause eye irritation.
Skin	: Contact with the fiber may cause skin irritation in rare

**CORROSIVENESS**

Eye : Nothing particular

Skin : Nothing particular

**CHRONIC EFFECT**

: It has not been reported that inhalation of a small quantity of fiber dust for a long period of time has affected the lung.

**CARCINOGENICITY**

: The fiber has no carcinogenicity according to animal experiments.

**12. ECOLOGICAL INFORMATION**

This product is intrinsically non-biodegradable and does not affect the ecological systems of plants and animals.

**13. DISPOSAL CONSIDERATIONS**

The fiber waste is not hazardous. Handle, store, transport and dispose of the fiber waste according to local and national laws and regulations. The fiber is intrinsically non-biodegradable and may not be drained to a sewage system.

**14. TRANSPORTATION INFORMATION**

Transport of this product involves no particular risk. No particular transport limitations are imposed on the product in Japan and other countries.

**15. REGULATORY INFORMATION**

Law concerning Pollutant Release and Transfer Register (PRTR) : Not applicable

**16. OTHER INFORMATION**

Reference:

MSDS issued by the manufacturer

Established on Jan 18, 2011

Revised on Dec 1, 2015

This document has been prepared based on the information and data that are available as of this date. Therefore, it may be revised when new information or data has been obtained.

The information and data contained herein are subject to the normal use. The evaluation of dangerousness and toxicity is, therefore, not always applicable. For this reason, the safety precautions suitable for your purpose and method must be taken prior to the use.