

TWARON® PAPER

Article Safety Data Sheet

ASDS ID: TA00106

Issue date: 2021/01/01 Version: 1.0

This product is an article. A safety data sheet is not required for this product. This document is provided to instruct you how to handle this product safely.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product form : Article

: TWARON® PAPER Trade name

: Various applications which require high thermal and/or chemical resistance, e.g. Use of the article

honeycombs, electrical or thermal insulation, separator for batteries, filtration.

: In the event that the product is to be used in special areas of application that differ from Restrictions on use

the abovementioned applications, including but not limited to applications regarding the food industry (in particular related to food contact) or the medical/surgical sector (in particular related to body fluid contact), prior consultation with Teijin Aramid is required.

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SECTION 2: Hazards identification

This product is an article and not a chemical substance or mixture. Therefor labelling as a hazardous substance/mixture is not required. So far no impairment of health has become known in cases where the product has been used for its intended application.

SECTION 3: Composition/information on ingredients

Comments : Aramid (ISO 2076), Polymer.

Name	Product identifier	Conc. (% w/w)
Poly-(para-phenylene-terephthalamide)	(CAS-No.) 26125-61-1	20 – 100
Poly-(meta-phenylene-isophthalamide)	(CAS-No.) 25765-47-3	0 – 80

SECTION 4: First aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : If skin irritation occurs, wash thoroughly with soap and water.

First-aid measures after eye contact : Rinse immediately with plenty of water. Contact lenses should be removed. If eye irritation

persists: Get medical advice/attention.

First-aid measures after ingestion

Symptoms/effects after inhalation : Dust from this product may cause irritation to the respiratory tract. Coughing, sneezes.

Symptoms/effects after skin contact : Slight skin irritation has been observed in isolated cases. Itching. Rednesses.

Symptoms/effects after eye contact : Dust from this product may cause eye irritation. Redness. Tears. Pain.

SECTION 5: Firefighting measures

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Hazardous decomposition products in case of fire : Under fire conditions, hazardous fumes will be present: Carbon dioxide, Carbon monoxide,

Nitrogen oxides, Organic compounds, Hydrogen cyanide.

SECTION 6: Accidental release measures

Do not breathe dust.

Environmental precautions : Avoid release to the environment.

Methods for cleaning up : Avoid dust formation. Sweep or shovel spills into appropriate container for disposal.

SECTION 7: Handling and storage

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice. Ensure good ventilation of the work station. Take precautionary measures against static discharge.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

: All bobbins, storage cartons and bales must be stored in compliance with the relevant Storage conditions

regulations and in accordance with good handling and storage practice. Store in a wellventilated place. Keep cool. Keep out of direct sunlight. Do not freeze.

: Strong acids. Strong bases. Incompatible materials

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Heat and ignition sources

: Do not expose to temperatures above 400 °C. To avoid thermal decomposition, do not overheat. In cases where the product is heat-treated at temperatures of >130 °C, the applied fiber finish may evaporate or decompose.

SECTION 8: Exposure controls/personal protection

Additional information

Occupational Exposure Limit, Time Weighted Average (OEL TWA, 8h) - inhalable dust: 10 mg/m3. Users are advised to consider national Occupational Exposure Limits or other equivalent values

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

None under normal use. Slight skin irritation has been observed in isolated cases. If skin irritation occurs: Protective gloves

Eve protection:

Generally not required when manually handling paper

Skin and body protection:

Long sleeved protective clothing

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment. This is required in cases where a maximum concentration of 1 RFP/ml of air is exceeded

Device	Filter type	Condition	Standard
Dust mask, APF=10	Type P2	In the event of insufficient ventilation	EN 149

Environmental exposure controls:

Avoid release to the environment

Other information:

Handle in accordance with good industrial hygiene and safety procedures. During the processing and application of the fibers, small amounts of dust (including dust particles of respirable size) may be given off. A health risk caused by the inhalation of aramid dust particles does not exist if our safety instructions are observed. Fiber fly, dust and decomposition products of the fiber finishes must be avoided by ensuring adequate extraction and ventilation. Factory safety regulations must be strictly observed.

SECTION 9: Physical and chemical properties

Physical state : Solid

Appearance : Paper sheet, Roll

Colour : Yellow
Odour : Odourless

Melting point : Not applicable (Decomposes)

Decomposition temperature: : > 400 $^{\circ}$ C Density : 200 – 1200 kg/m³

Solubility : Water: Negligible, Strong acids: Soluble

Explosive properties : Not explosive

SECTION 10: Disposal considerations

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions. If water is used for further treatment, be aware that it is possible that the additives from the yarn can be removed in an aqueous medium.

Sewage disposal recommendations

: If water is used for further treatment, the waste water generated by the process must be treated in a water purification plant in compliance with local regulations.

Product/Packaging disposal recommendations

: Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

SECTION 11: Regulatory information

European Union

This product is an article as defined by REACH REGULATION (EC) No 1907/2006. Labelling according to CLP REGULATION (EC) No 1272/2008 is therefore not required. This document is provided in order to communicate information on substances in this article, in order to allow safe use in compliance with REACH REGULATION (EC) No 1907/2006 article 33.1.

Contains no substance on the REACH candidate list ≥ 0,1% / ≥ Specific concentration limits

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USA

This product is an article as defined by OSHA 29 CFR 1910.1200 paragraph c. According to 1910.1200(b)(6)(v), articles are exempt from hazard communication via GHS label and Safety Data Sheet. Labeling according to GHS is therefore not required.

This document is provided in order to communicate information on substances in this article, in order to allow safe use.

Canada

This product is an article as defined by Hazardous Products Act (R.S.C., 1985, c. H-3), paragraph 2. According to paragraph 12(i) manufactured articles are exempt from hazard communication via HPR label and Safety Data Sheet. Labeling according to HPR is therefore not required. This document is provided in order to communicate information on substances in this article, in order to allow safe use.

Mexico

This product is an article. "Articles" as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the GHS system. Labeling according to GHS is therefore not required. This document is provided to communicate information on substances in this article, in order to allow safe use. National regulatory information: NORMA Oficial Mexicana NOM-018-STPS-2015

People's Republic of China

This product is an article. "Articles" as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the GHS system. Labeling according to GHS is therefore not required. This document is provided to communicate information on substances in this article, in order to allow safe use. National regulatory information: GB 30000.2-29-2013

Japan

This product is an article as defined by JIS Z7252:2019. According to JIS Z7252:2019, articles are exempt from hazard communication via GHS label and Safety Data Sheet. Labeling according to GHS is therefore not required.

This document is provided in order to communicate information on substances in this article, in order to allow safe use.

Korea

This product is an article. "Articles" as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the GHS system. Labeling according to GHS is therefore not required. This document is provided to communicate information on substances in this article, in order to allow safe use. National regulatory information: MoEL's Public Notice No. 2016-19

Brazil

This product is an article. "Articles" as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the GHS system. Labeling according to GHS is therefore not required. This document is provided to communicate information on substances in this article, in order to allow safe use.

National regulatory information: ABNT NRB 14725

ASDS - Teijin

Disclaimer

The information given in this Article Safety Data Sheet for Man-made Fibers refers exclusively to the fiber product described herein. It covers neither its use in combination with any other material/preparation/product nor its use in any process. The purpose of this Article Safety Data Sheet for Man-made Fibers is to make adequate and correct information available to commercial users of man-made fibers for the protection of human beings and the environment. The information given in this Article Safety Data Sheet for Man-made Fibers reflects the standard of knowledge of the party completing the sheet at the time of printing. It is not a contractual guarantee of product properties. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.