

Safety Data Sheet

1. Product and Company Information

Product name	: PES Membrane Cartridge Filter TCS-(020, 045)- (S, D, T, Q)1(H, K, J) S
Supplier company name, address, phone number	
Company	: Toyo Roshi Kaisha, Ltd.
Head office	: Hibiya-Kokusai BLDG 5F, 2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo, 100-0011 Japan
Section in charge	: Quality Assurance Department
Phone	: +81-3-5521-2176
Fax	: +81-3-5521-2177
E-mail	: trk-hinsho@advantec.co.jp
Recommended application	: Liquid microfiltration, sterilization.
Restrictions in use	: • Please consult us for other uses. • When using for filtration of organic solvents, use a stainless steel housing and ground it for antistatic measures.

2. Hazard Summary

GHS Classification	
Physical hazards	: Not applicable to the classification.
Human health hazard	: Not applicable to the classification.
Environmental hazard	: Not applicable to the classification.
Label element	: N/A

3. Composition and Information on ingredients

Chemical substance/Mixture	: Mixtures
Chemical name or general product name	: PES Membrane Cartridge Filter
Ingredients and Content	: Polyethersulfone (Filter) (CAS No.113569-14-5) (CAS No.36313-66-3) (CAS No.25667-42-9)
	Wetting agent
	Polypropylene (Support Media, Core Tube, Outer sleeve, End cap, Blind cap, Fin) (CAS No.9003-07-0) (CAS No.26063-22-9)
	Silicone rubber(O-ring)
	Polysulfone (Heat-resistant reinforcement parts) (CAS No.25154-01-2)

Reference Number in Gazetted List in Japan

• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture etc.	: (7)-1853 Polyethersulfone (6)-402 Polypropylene (6)-10 Polypropylene
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• Japanese Chemical Substances

Control Act.

Japan's Industrial Safety and Health Act.	: Not applicable.
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4. First Aid Measures
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| Inhalation | : | Not applicable. |
| Skin contact | : | Not applicable. |
| Eye contact | : | Not applicable. |
| Ingestion | : | Not applicable. |
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5. Fire Fighting Measures
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|----------------------------------|---|--|
| Extinguishing media | : | Plenty of water (spray), dry chemicals, carbon dioxide, foam chemicals, and halogen media. |
| Unacceptable extinguishing media | : | No data available. |
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6. Accidental Release Measures
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| Personnel precautions, protective equipment and emergency procedures | : | No data available. |
| Precautions for environment | : | No data available. |
| Methods and materials for containment and cleaning up | : | No data available. |
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7. Handling and Storage
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| Handling | : | Be careful about the handling by the fire.
Avoid strong acids and strong bases. |
| Storage | : | Avoid direct sunlight, ultraviolet light, wetting, high and low temperatures, high humidity, open-air storage, strong acids and strong bases.
If a total stored amount exceeds 3,000 kg, follow Fire Defense Law (specific combustible material) |
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8. Prevention of exposure and human body protection
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|---|---|--|
| Acceptable concentration
Japan Society for Occupational Health | : | No data available. |
| Acceptable concentration
ACGIH | : | No data available. |
| Facility provision | : | Take effective measures if necessary. |
| Protective equipment | : | Use appropriate protective tools if necessary. |
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9. Physical and Chemical Properties
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|--|---|------------------------|
| Physical property | : | Solid, Tubular filter. |
| Color | : | White. |
| Odour | : | None. |
| Melting point / Freezing point | : | No data available. |
| Boiling point or initial boiling point and boiling range | : | No data available. |
| Flammability | : | Yes. |
| Lower explosion limit and upper explosion limit / Flammability limit | : | Not applicable. |
| Flash point | : | Not applicable. |
| Spontaneous ignition point | : | Not applicable. |
| Decomposition temperature | : | Not applicable. |
| pH | : | No data available. |
| Kinematic viscosity | : | Not applicable. |
| Solubility | : | Insoluble in water. |
| n-octanol / Water partition coefficient | : | No data available. |
| Vapor pressure | : | No data available. |

Density or relative density	:	No data available.
Relative gas density	:	Not applicable.
Particle characteristics	:	No data available.

10. Stability and Reactivity

Reactivity	:	Stable under normal handling.
Chemical Stability	:	Stable under normal handling. Polymerization or decomposition occurs by contact with a strong acid or alkali. (Silicone rubber)
Possibility of hazardous reactions	:	No data available.
Conditions to avoid	:	Avoid strong acids and strong bases.
Hazardous substances for mixing	:	No data available.
Hazardous decomposition products	:	No data available.

11. Toxicological Information

Acute toxicity (oral)	:	Not applicable to the classification. (As a single substance) Not applicable to the classification. RAT LD ₅₀ >4,000mg/kg (Polyethersulfone)
(dermal)	:	Cannot be classified due to lack of data.
(inhalation: gases)	:	Cannot be classified due to lack of data.
(inhalation: vapours)	:	Cannot be classified due to lack of data.
(inhalation: dust and mist)	:	Cannot be classified due to lack of data.
Skin corrosion/ Irritation	:	Cannot be classified due to lack of data.
Serious eye damage/ eye irritation	:	Cannot be classified due to lack of data.
Respiratory sensitization / Skin sensitization	:	Cannot be classified due to lack of data.
Germ cell mutagenicity	:	Cannot be classified due to lack of data.
Carcinogenicity	:	Cannot be classified due to lack of data. (As an ingredient) It has been classified by IARC as a Group 3 (Not classifiable as to its carcinogenicity to humans), which the data is insufficient at this time. (Polypropylene)
Reproductive toxicity	:	Cannot be classified due to lack of data.
Specific target organ toxicity - Single exposure	:	Cannot be classified due to lack of data.
Specific target organ toxicity - Repeated exposure	:	Cannot be classified due to lack of data.
Aspiration hazard	:	Cannot be classified due to lack of data.

12. Ecological Information

Ecotoxicity		
Hazardous to the aquatic environment (acute)	:	Cannot be classified due to lack of data.
Hazardous to the aquatic environment (chronic)	:	Cannot be classified due to lack of data.
Persistence and Degradability	:	No data available.
Bioaccumulative potential	:	No data available.
Mobility in soil	:	No data available.
Ozone layer hazard	:	Cannot be classified due to lack of data.

13. Disposal Considerations

Dispose it in accordance with national, prefectural and local regulations.

The same as general industrial waste, outsource industrial waste disposal companies or local public organizations who are authorized by governors.

In case of the incineration, use controlled incinerator following Air Pollution Control Law, Waste Disposal & Public Cleaning Law and Water Pollution Control Law. (We recommend disposing the material as an industrial waste.)

14. Transportation Notes

Regulatory information in case there are : Applicable as designated Flammables in the domestic regulations. Fire Service Act.

15. Applicable Law

• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture etc. : Existing Chemical Substances
(7)-1853 Polyethersulfone
(6)-402 Polypropylene

• Japanese Chemical Substances Control Act. (6)-10 Polypropylene

Fire Defense Law : Article 9-4 (Standard for storage and handling of hazardous material with less than specified amount), Article 1-12 on regulations of hazardous materials, and Group 4 specific flammable materials (synthetic resin. If a total amount is 3,000 kg, follow Fire Defense Law. If a total amount is less than 3,000 kg, follow the regulations defined by municipal ordinance for storage and handling of the material).

16. Note:

The descriptions in this Safety Data Sheet are made based on the literature, information or data that we can obtain at this moment but subject to be revised with new knowledge in the future.

The content, physical and chemical properties, hazards, etc. do not provide any assurance, and precautions are intended for normal handling. For special handling, take appropriate safety measures for the intended use.

Please take that this safety data sheet is for your reference and take appropriate measures in accordance with actual conditions under your responsibility.

Please note that this Safety Data Sheet is created according to Japanese law.

Reference Literature

- Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)” (JIS Z 7252:2019)
 - Communicating hazard information on labels based on GHS—Labelling, Posting in the workplace and Safety Data Sheet (SDS) (JIS Z 7253:2019)
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