Reference No.: MH-3002A

Toyo Roshi Kaisha, Ltd. 1/4 Revised Date: February 13,2023

Safety Data Sheet

1. Product and Company Information

Product name Acetate Membrane Cartridge Filter

TCR-(020, 045, 080)-(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 Acetate Membrane Cartridge Filter

Ingredients and Content Cellulose acetate (Filter)

(CAS No.9004-35-7)

Wetting agent

Polypropylene (Support Media, Core Tube,

Outer sleeve, End cap)

(CAS No.9003-07-0) (CAS No.9010-79-1)

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.

· Japanese Chemical Substances

Control Act.

Japan's Industrial Safety and Health

Act.

(8)-165Cellulose acetate (6)-402Polypropylene

(6)-10Polypropylene

Not applicable.

Reference No.: MH-3002A Acetate Membrane Cartridge Filter Toyo Roshi Kaisha, Ltd. 2/4 TCR-(020, 045, 080)-(S,D,T,Q)1(H,K,J)S Revised Date: February 13, 2023

4. First Aid Measures

Inhalation: Not applicable.Skin contact: Not applicable.Eye contact: Not applicable.Ingestion: Not applicable.

5. Fire Fighting Measures

Extinguishing media : Plenty of water (spray), dry chemicals, carbon

dioxide, foam chemicals, and halogen media.

Unacceptable extinguishing media : No data available.

6. Accidental Release Measures

Personnel precautions, protective : No data available.

equipment and emergency procedures

Precautions for environment : No data available. Methods and materials for containment : No data available.

and cleaning up

7. Handling and Storage

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)

8. Prevention of exposure and human body protection

Acceptable concentration : No data available.

Japan Society for Occupational Health

Acceptable concentration : No data available.

ACGIH

Facility provision : Take effective measures if necessary.

Protective equipment : Use appropriate protective tools if necessary.

9. Physical and Chemical Properties

Physical property : Solid, Tubular filter.

Color : White.
Odour : None.

Melting point / Freezing point : No data available. Boiling point or initial boiling point and : No data available.

boiling range

Flammability : Yes.

Lower explosion limit and upper : Not applicable.

explosion limit / Flammability limit

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.

Reference No.: MH-3002A Acetate Membrane Cartridge Filter TCR-(020, 045, 080)-(S,D,T,Q)1(H,K,J)S

Toyo Roshi Kaisha, Ltd. 3/4 Revised Date: February 13, 2023

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 LD₅₀>5,000mg/kg

(Cellulose acetate)

(dermal)
 (inhalation: gases)
 (inhalation: vapours)
 (inhalation: dust and mist)
 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.
 Cannot be classified due to lack of data.

sensitization

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

Cannot be classified due to lack of data.

Cannot be classified due to lack of data.

time. (Polypropylene)

Reproductive toxicity : Cannot be classified due to lack of data.

Specific target organ toxicity - Single : Cannot be classified due to lack of data.

exposure

Specific target organ toxicity - Repeated

exposure

Aspiration hazard : Cannot be classified due to lack of data.

12. Ecological Information

Ecotoxicity

Hazardous to the aquatic environment

(acute)

Hazardous to the aquatic environment : Cannot be classified due to lack of data.

(chronic)

Persistence and Degradability : No data available. Bioaccumulative potentional : No data available. Mobility in soil : No data available. Reference No.: MH-3002A

Toyo Roshi Kaisha, Ltd. 4/4 Revised Date: February 13,2023

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 domestic regulations.

Applicable as designated Flammables in the Fire Service Act.

15. Applicable Law

• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture etc.

• Japanese Chemical Substances Control Act.

Fire Defense Law

Existing Chemical Substances (8)-165 Cellulose acetate (6)-402 Polypropylene (6)-10 Polypropylene

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)