

## Safety Data Sheet

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### 1. Chemical product and Company Information

Name of chemical	: Mixed Cellulose Esters Membrane Filter for Microbiological Experiment Particle Analysis (Black)
Supplier's name, address and phone number	
Company	: Toyo Roshi Kaisha, Ltd.
Address	: Hibiya-Kokusai BLDG 5F, 2-2-3, Uchisaiwaicho, Chiyoda-ku, Tokyo, 100-0011 Japan
Section in charge	: Quality Assurance Division
Phone	: 81-(0)3-5521-2176
Fax	: 81-(0)3-5521-2177
Mail address	: trk-hinsho@advantec.co.jp
Recommended application	: Microbiological and Particulate analysis.
Use restrictions	: In case of other purpose of use, please contact us to discuss.

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### 2. Hazard Summary

#### GHS classification of chemicals

##### Physical hazard

Flammable solids : Category 1.

Human health hazard : Classification not possible.

Environmental hazard : Classification not possible.

#### GHS Label element

##### Pictograms or symbols



Signal words : Danger.

Hazard statements : Flammable solids.

##### Precautionary statements

Safety measure : Keep away from heat, high-temperature object, sparks,  
open flames and other ignition sources. No smoking.  
Containers must be grounded.  
Use explosion-proof type electrical equipment, ventilation  
systems and lighting equipment.  
Wear protective gloves / protective clothing / protective  
eyeglasses / protective face mask.

First aid measures : In case of fire, use appropriate fire extinguishing agent  
to extinguish.

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## 3. Composition and Information on ingredients

Chemical substances/Mixtures	: Mixtures	
Chemical name or general name	: Membrane Filter	
Ingredients and Concentration or concentration range	: Cellulose nitrate	About 82~86%
		(CAS No.9004-70-0)
	Cellulose acetate	(CAS No.9004-35-7)
	Wetting agent	
Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	: (8)-176	Cellulose nitrate
	(8)-165	Cellulose acetate
Japan's Industrial Safety and Health Law	: Appendix No.9-424	Nitrocellulose (Cellulose nitrate)
UN Classification	: Class 4.1	UN packing group II
UN No.	: 3270	(NITROCELLULOSE MEMBRANE FILTERS)

## 4. First Aid Measures

Inhalation	: Not applicable.
Skin contact	: Not applicable.
Eye contact	: Immediately wash thoroughly with clean running water. In case of abnormality, consult with a physician.
Ingestion	: Rinse mouth. Do not force vomiting. Get medical attention and diagnosis.

## 5. Fire Fighting Measures

Appropriate extinguishing media	: A copious amount of water (spray), carbon dioxide, fire-extinguish powder, foam fire-extinguisher, sand, and soil, etc.
Unacceptable extinguishing media	: No data available.
Extinguishing procedure	: Do not extinguish a fire when the fire starts to explode. Evacuate the section. If a fire breaks out around the area, please transfer to a transportable container in a safe place. If the container is exposed to heat, please do not transfer it. If it is impossible to transfer the container sprinkle the container and surroundings with water to cool them down. After extinguishing, cool down the container with a plenty of water. When extinguishing fire, wear complete protective clothing (heat resistant) together with air respirator.(Cellulose nitrate)

## 6. Accidental Release Measures

Personal precautions, Protective equipment and emergency procedures	: No data available.
Precautions for environment	: No data available.
Containment and purification procedures and equipment	: No data available.

## 7. Handling and Storage

Handling	: Follow corresponding regulations such as Industrial Safety and Health Law and Fire Defense Law. Persons under the age of 18 or mental and physical disabilities cannot handle the explosives properly. These who takes measure to prevent harm, do not handle explosives to those specified by Cabinet Order. Do not handle until all safety precautions have been read and understood. Prohibit the use of high temperature objects, sparks, and the fire in the surroundings areas. Avoid heat and shock. Avoid breathing mist and vapours. If a fire breaks out, the container might explode, and you will need to evacuate the section. Please do not lean the container on its side, drop it, apply shock or drag. Do not subject the container to a crush, big impact or dragging. Wash hands thoroughly after handling. Do not get in your eyes. Do not get in contact, inhale or swallow. Use only outdoors or in a well-ventilated area.
Storage	: Keep away from ignition sources like heat, sparks and flames. No smoking. Keep containers away from direct sunlight and fire. Keep container tightly closed and store in well-ventilated place. Keep it in accordance with the rules of the state or province. Avoid long-term storage and strictly follow the expiration date. If a total stored amount exceeds 10 kg, follow Fire Defense Law(hazardous).

## 8. Exposure controls / Personal protection

## Acceptable concentration

Japan Society for Occupational Health : No data available.

ACGIH : No data available.

Facility provision : Take as needed.

Protective equipment : Use appropriate protective tools if necessary.

## 9. Physical and Chemical Properties

Physical state	: Solid, porous film.
Color	: Black.
Odor	: None.
Melting point / Freezing point	: No data available.
Boiling point or initial boiling point and Boiling range	: No data available.
Flammability	: Yes.
Lower limit and Upper limit of explosion/ Flammable limit	: Not applicable.
Flash point	: Not applicable.
Spontaneous firing point	: No data available.
Decomposition temperature	: No data available.
pH	: No data available.
Kinematic viscosity	: Not applicable.
Solubility	: Insoluble to water (Wetting agent is soluble.)

n-octanol / water partition coefficient	: No data available.
Steam 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.
Possibility of hazardous reactions	: Easily ignite by catching a fire. It may suddenly ignite or explode by coming in contact with oxidant, acid, base, or combustible agents. It may suddenly ignite or explode by a blow, static electricity, shock, or heat. Easy to oxidize under high temperature and high Humidity environment, which induces higher possibility for spontaneous ignition.
Conditions to avoid	: Fire, high temperature, high humidity, blow, electrostatic, shock, and/or heat.
Incompatible materials	: Coming in contact with to oxidant, acid, base, and/or combustible agent.
Hazardous decomposition products	: Nitrogen oxide. Generates carbon monoxide and carbon dioxide during burning.

#### 11. Toxicological Information

Acute toxicity	
Oral	: Not classified.
Dermal	: Classification not possible due to lack of data.
Inhalation: gas	: Classification not possible due to lack of data.
Inhalation: vapour	: Classification not possible due to lack of data.
Inhalation: dust, mist	: Classification not possible due to lack of data.
Skin corrosion / Irritation	: Classification not possible due to lack of data.
Serious eye damage and eye irritation	: Not classified.
Respiratory / Skin sensitization	: Classification not possible due to lack of data.
Germ cell mutagenicity	: Classification not possible due to lack of data.
Carcinogenicity	: Classification not possible due to lack of data.
Reproductive toxicity	: Classification not possible due to lack of data.
Specific target organ toxicity (Single exposure)	: Not classified. (As an ingredient) Category 3 Respiratory tract irritation, risk of irritation to respiratory. Possibility of irritable throat, vertigo, breathing difficulties and loss of consciousness in high densities. There are currently no concrete reports. (Cellulose nitrate)
Specific target organ toxicity (Repeated exposure)	: Classification not possible due to lack of data.
Aspiration hazard	: Classification not possible due to lack of data.

## 12. Ecological Information

## Ecotoxicity

Hazardous to the aquatic environment (acute)

: Classification not possible due to lack of data.

Hazardous to the aquatic environment (chronic)

: Classification not possible 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

: Classification not possible due to lack of data.

## 13. Disposal Considerations

For safety purposes have water at a close distance while incinerating small amounts at a time.

(Cellulose nitrate)

Dispose in accordance with federal, state and local regulations.

Just like disposal of general industrial waste, ask for industrial waste disposer accepted by prefectural governors or for a local public agency for disposal.

When incinerating the material, use the specific incineration facility. Take appropriate procedure that satisfies Clean Air Act, Waste Disposal and Public Cleaning Law, and Clean Water Law. (We recommend disposing the material as industrial waste.)

## 14. Transport Information

UN No. : 3270

Product name (UN shipping name)

: NITROCELLULOSE MEMBRANE FILTERS, with not more than 12.6 % nitrogen, by dry mass.

Class : 4.1

UN packing group : II

Regulatory information and local regulations

: Follow Fire Defense Law, Aviation Law, and Ships Safety Law

## 15. Regulatory Information

Japan Industrial Safety and Health Law

: Enforcement order separate table Article 1 Section 1, Hazardous and explosive material

1 Nitrocellulose

(Cellulose nitrate)

Hazards and harmful substances should be displayed or notified

Appendix No.9-424 Nitrocellulose

(Cellulose nitrate)

Fire Defense Law

: Article 9-4 (Standard for storage and handling of hazardous material with less than specified amount), Government ordinance regarding hazardous material regulations, Article 1-11, Attached table 3 and 5 (Class I self-reactive material, Fire Defense Law applicable for the material with 10 kg or more. If less than 10 kg, standards for storage and handling of the material are set by local authority.)

(Cellulose nitrate)

Ships Safety Law

: Regulations for the Carriage and Storage of Dangerous Goods in Ships Articles 2 Division 4.1 flammable material (4.1 packing group II)

(Cellulose nitrate)

Port Regulations Law : Article 12 hazardous material (flammable materials)

(Cellulose nitrate)

Aviation Law

: Article 194 hazardous material-flammable material (H-2)

(Cellulose nitrate)

#### 16. Other information

##### Handling of written contents

Contents of this data sheet are based on materials, information, and data acquirable at this point and are subject to revision due to new knowledge.

In addition, contents such as contained amount, physical and chemical properties, and hazards identification are not subject of any guarantee. These precautions are applied only during standard handling. If the material is used in a special way, take appropriate safety measures that correspond to actual applications and usages.

Each user is responsible to take appropriate measures with due consideration of contents in this sheet.

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

##### List of references

- Classification method of chemicals based on GHS(JIS Z 7252: 2019)
  - Hazard communication of chemicals based on GHS - Labelling and Safety Data Sheet (SDS) (JIS Z 7253: 2019)
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