

Safety Data Sheet

1. Chemical product and Company Information

Name of chemical	: Activated Carbon Filled Cartridge CHC-50-A10,CHC-76-A10
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	: +81-3-5521-2176
Fax	: +81-3-5521-2177
Mail address	: trk-hinsho@advantec.co.jp
Recommended application	: Collection of radioactive iodine
Use restrictions	: In case of other purpose of use, please contact us to discuss.

2. Hazard Summary

GHS classification of chemicals	
Physical hazard	: Classification not possible.
Human health hazard	: Classification not possible.
Environmental hazard	: Classification not possible.
GHS Label element	: None.

3. Composition and Information on ingredients

Chemical substances/Mixtures	: Mixtures
Chemical name or general name	: Activated Carbon Filled Cartridge
Ingredients and Concentration or concentration range	
	: Activated Carbon (CAS No.7440-44-0) (Filler)
	: Polycarbonate (CAS No.25971-63-5) (Container)
	: Additive (Container)
	: Titanium oxide (CAS No.13463-67-7) <0.4% (Container)
	: Rayon (CAS No.61788-77-0) (Filter)
	: Polyester (CAS No.25038-59-9) (Filter)
	: Acrylic copolymer (Filter)
	: Vinyl acetate polymer (Filter)
	: Triethylenediamine (CAS No.280-57-9) (Impregnating agent)

Reference Number in Gazetted List in Japan

Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

: (7)-738	Polycarbonate
: (1)-558	Titanium oxide
: (7)-1022	Polyester
: (5)-1141	Triethylenediamine

Japan's Industrial Safety and Health Law : (9)-191 Titanium oxide

4. First Aid Measures

Inhalation	: If you feel sick after inhaling the gases from Fused material, move to a location with fresh air and wait for recovery.	(Polycarbonate,ABS)
Skin contact	: Not applicable.	
Eye contact	: Not applicable.	
Ingestion	: Not applicable.	

5. Fire Fighting Measures

Appropriate extinguishing media	: Plenty of water (spray), dry chemicals.
Unacceptable extinguishing media	: Rod injection.

6. Accidental Release Measures

Personal precautions, Protective equipment and emergency procedures	: Avoid inhalation and direct contact with the object. Wear protective equipment (respiratory protective equipment, gloves, boots, glasses, etc.) as appropriate.
Precautions for environment	: Care should be taken to ensure that the products that have flowed out are not discharged into rivers, etc., and do not adversely affect the environment. Avoid dispersal of dust.
Containment and purification procedures and equipment	: Sweep and collect in an empty container.

7. Handling and Storage

Handling	: Be careful with the handling of firearms.
Storage	: In order to prevent the alteration and/or deterioration caused by moisture absorption, seal the container tightly and store the container at a cool and dark place. Do not store with oxides and/or organic peroxides. If a total stored amount exceeds 10,000 kg, follow Fire Defense Law (specific combustible material: coal and charcoal). (Activated Carbon)

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, A cartridge filled with activated carbon in a polycarbonate container and sealed with a filter.
Color	: White.
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	: 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.
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	: No data available.
Conditions to avoid	: Direct sunshine, ultraviolet, wetting, high temperature, high humidity, open-air storage.
Incompatible materials	: Strong oxidizers.
Hazardous decomposition products	: No data available.

11. Toxicological Information

Acute toxicity	
Oral	: Classification not possible due to lack of data.
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	: Classification not possible due to lack of data.
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)

: Classification not possible due to lack of data.

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

: Classification not possible due to lack of data.

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

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

Regulatory information and local regulations

: Fire Defense Law under flammable objects.

15. Regulatory Information

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

Japanese Chemical Substances Control Act.

: Existing Chemical Substances (7)-738	Polycarbonate
(1)-558	Titanium oxide
(7)-1022	Polyester
(5)-1141	Triethylenediamine

Japan's Industrial Safety and Health Act.

: Hazards and harmful substances should be displayed or notified

Appendix (9)-191 Titanium oxide

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 (Coal and charcoal. If a total amount is 10,000 kg, follow Fire Defense Law. If a total amount is less than 10,000 kg, follow the regulations defined by municipal ordinance for storage and handling of the material) (Activated Carbon)

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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