

MATERIAL SAFETY DATA SHEET

1. Manufacturer Information:

Product name : DIALAMY FR-02 Natural
Company : Mitsubishi Plastics, Inc.
Address : Mitsubishi Jushi Bldg., 1-2-2 Nihonbashihongokucho
Chuo-ku, Tokyo 103-0021, Japan
Department in charge : Electronics & Industrial Film Department
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Recommended and restriction in use
: Flame retardant polyester film for electrical insulation, PET composite

Serial No. 735-002

Revision : July 30, 2010

2. Summary of hazardous and toxicity

GHS classification : Not applicable to the classification criteria
Toxicity and hazard : None
Environmental influence : Unknown at present

3. Composition and ingredient

Single or mixture : Polyester composites (PET composites)
Official gazette serial No. (Chemical Substance Control Law)
: Polyethylene tere-phthalate (7-1022)
Official gazette serial No. (Workers' safety and Health Law)
: Antimony trioxide(Serial No. 38)

Ingredient & content:

Ingredient:	Content	CAS No.
Polyethylene tere-phthalate	Approximately 70%,	25038-59-9
Hexabromobenzene (Flame retardant)	Approx 13%.	87-82-1
Antimony trioxide (Flame retardant additive)	Approx. 5%	1309-64-4
Bis phenol -A- Epichlorohydrin resin	Approx. 2%	25068-38-6
Hardeners	Approx. 10%	—

Chemical formula : Polyethylene tere-phthalate
 $\text{HO}(\text{COC}_6\text{H}_4\text{COOCH}_2\text{CH}_2\text{O})_n\text{H}$

4. First aid measures:

Eye contact	: Immediately wash with plenty of fresh water. If necessary, ask for medical help.
Skin contact	: Not applicable
Ingestion	: Try to get the victim to vomit. Then ask for medical help.
Inhalation of burning gas	: Refer to medical attention quickly.

5. Fire fighting

Extinguishing method	: Use plenty of water
Extinguishing media	: Water
Other	: Toxic gases (carbon dioxide, carbon monoxide, hydrogen bromide) will form upon combustion. Avoid breathe the gas, use adequate ventilation and wear suitable respiratory equipment.

6. Accidental release measures

Precaution to human being	: As this is a solid matter having certain shape, not applicable.
Precaution to environment	: Prevent the overflow product (such as cut dust) into river or outdoor causing adverse effect on the environment.

7. Caution upon handling and storage

Handling	: Don't use for foodstuff. : Avoid inhaling of bromine containing smoke generated by burning Dialamy film with other combustible material. : Keep away from wet or humid area.
Storage	: Avoiding direct sunshine and moisture, store in well-ventilated cool location

8. Exposure protection measures

Controlled concentration	: Not specified
Allowable concentration	
Japan Industrial Hygiene	: Not specified.
ACGHI	: Not specified
Facilities measures	: .Not required
Protection gears:	
Respiratory protection	: Not required
Protection glasses	: Not required
Protective gloves	: Not required
Protective clothes	: Not required

9. Physical & Chemical properties:

Appearance	: Whitish, black or white film
Boiling point	: None
Vapor pressure	: None
Volatility	: 170°C
Melting point	: None
Density (bulk density)	: 1.5 (at 23°C)
Solubility (in water)	: Not soluble
Decomposition temperature	: Approximately 300°C

10. Hazards identification (Stability & Reactivity)

Flammability	: Flame resistance, UL94 VTM-0
Ignition temperature (Spontaneous combustibility, Reactivity with water)	: None
Oxidizability	: Stable at normal temperature
Self-reactivity, explosion limit	: None
Stability/reactivity	: Stable at normal handling

11. Toxicological information

Skin irritant properties	: No knowledge
Corrosive properties (skin and eyes)	: No knowledge
Allergenic and sensitizing effects	: No knowledge
Acute toxicity	: No knowledge
Sub-chronic toxicity	: No knowledge
Chronic toxicity	: No knowledge
Carcinogenic effects	: No knowledge
Mutagenic effects	: No knowledge
Effects on the reproductive system	: No knowledge
Teratogenic effects	: No knowledge

12. Ecological information

Biodegradability	: None
Bioaccumulation	: None
Fish toxicity	: None
Other information on eco-toxicity	: None

13. Caution upon disposal

Dispose of by landfill as non-hazardous waste. Incinerate with a chemical incinerator keeping combustion temperature above 800°C

14. Caution upon transportation

Same as handling and storage method

15. Applicable law

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Law)
:Antimony trioxide ;Class I Designated Chemical Substance, Cabinet Order No. 31

Workers' safety and Health Law : Antimony trioxide

16. Utilization of above information

The above description has been prepared based on the latest data available. But, the physical properties, hazardous and toxicological information are not guarantee data. The cautions are mentioned for the case of normal handing. In the case of special handling, please apply safety precaution in consideration of application and method of using.
