

MATERIAL SAFETY DATA SHEET

FRPE 156694

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Revision Date 01/12/2012 Print Date 1/29/2012

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE

Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

or accident).

Product name : FRPE 156694
Product code : CC10156694
Chemical Name : Mixture
CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
1,1'-(Ethane-1,2-	84852-53-9	30 - 60
diyl)bis[pentabromobenzene]		
Boric acid (HBO2), calcium salt (2:1)	13701-64-9	1 - 5
Antimony trioxide	1309-64-4	5 - 10

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the enduser (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Ingestion, Skin contact

Acute exposure

Inhalation : Resin particles, like other inert materials, can be mechanically

irritating.

Ingestion : May be harmful if swallowed.

Eyes : Resin particles, like other inert materials, are mechanically irritating to

eves.

Skin : Experience shows no unusual dermatitis hazard from routine handling.



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Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions Aggravated by Exposure: : None known.

4. FIRST AID MEASURES

Inhalation : Move to fresh air in case of accidental inhalation of fumes from

overheating or combustion. When symptoms persist or in all cases of

doubt seek medical advice.

Ingestion : Do not induce vomiting without medical advice. When symptoms

persist or in all cases of doubt seek medical advice.

Eyes : Rinse immediately with plenty of water, also under the eyelids, for at

least 15 minutes. If eye irritation persists, seek medical attention.

Skin : Wash off with soap and plenty of water. If skin irritation persists

seek medical attention.

5. FIRE-FIGHTING MEASURES

Flash point : not applicable

Flammable Limits

Upper explosion limit : not applicable Lower explosion limit : not applicable Autoignition temperature : not applicable

Suitable extinguishing media : Carbon dioxide blanket, Water spray, Dry powder, Foam.

Special Fire Fighting

Procedures

Fullface self-contained breathing apparatus (SCBA) used in positive

pressure mode should be worn to prevent inhalation of airborne

contaminants.

Unusual Fire/Explosion

Hazards

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear appropriate personal protection during cleanup, such as

impervious gloves, boots and coveralls.

Environmental precautions : Should not be released into the environment. The product should not

be allowed to enter drains, water courses or the soil.

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in

plastic, cardboard or metal containers for disposal. Refer to Section

13 of this MSDS for proper disposal methods.



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7. HANDLING AND STORAGE

Handling : Take measures to prevent the build up of electrostatic charge. Heat

only in areas with appropriate exhaust ventilation.

Storage : Keep containers dry and tightly closed to avoid moisture absorption

and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection : No personal respiratory protective equipment normally required.

Eye/Face Protection : Safety glasses with side-shields

Hand protection : Protective gloves

Skin and body protection : Long sleeved clothing

Additional Protective

Measures

Safety shoes

General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Engineering measures

 $: \quad \mbox{Heat only in areas with appropriate exhaust ventilation. \ \mbox{Provide}$

appropriate exhaust ventilation at machinery.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
Antimony trioxide	imony trioxide 0.5 mg/m3 Time Weighted Average		as Sb	MX OEL
		(TWA):		
	0.5 mg/m3	Time Weighted Average	as Sb	ACGIH
		(TWA):		
	0.5 mg/m3	Recommended exposure	as Sb	NIOSH
		limit (REL):		
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average	as Sb	OSHA Z1A
		(TWA):		
Boric acid (HBO2),	2 mg/m3	Time Weighted Average	Inhalable fraction.	ACGIH
calcium salt (2:1)		(TWA):		
	6 mg/m3	Short Term Exposure Limit	Inhalable fraction.	ACGIH
		(STEL):		

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : solid Evaporation rate : Not applicable Appearance : pellets Specific Gravity : Not determined



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: NO PIGMENT Colour Bulk density Not established Odour : very faint Vapour pressure not applicable : not applicable Melting point/range : Not determined Vapour density **Boiling Point:** : not applicable : not applicable pН

Water solubility : insoluble

10. STABILITY AND REACTIVITY

Stability : Stable

Hazardous Polymerization : Will not occur.

Conditions to avoid : Keep away from oxidizing agents and open flame. To avoid thermal

decomposition, do not overheat.

Incompatible Materials : Incompatible with strong acids and oxidizing agents.

Hazardous decomposition

products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen

(NOx), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
84852-53-9	1,1'-(Ethane-1,2-diyl)bis[pentabromobenzene]	Chronic effects	Skin, Respiratory system.
13701-64-9	Boric acid (HBO2), calcium salt (2:1)	Irritant	Eyes, Skin.
1309-64-4	Antimony trioxide	Systemic effects	Eyes, Respiratory system.
		sensitizer	Skin.

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
84852-53-9	1,1'-(Ethane-1,2-	Oral LD 50	> 5,000 mg/kg	Rat
	diyl)bis[pentabromobenze	Dermal LD 50	> 2,000 mg/kg	rabbit
	ne]			
1309-64-4	Antimony trioxide	Oral LD50	> 34,600 mg/kg	rat

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:



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CAS-No.	Chemical Name	OSHA	IARC	NTP
1309-64-4 Antimony trioxide		no	2B	no

IARC Carcinogen Classifications:

- 1 The component is carcinogenic to humans.
- 2A The component is probably carcinogenic to humans.
- 2B The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

- 1 The component is known to be a human carcinogen.
- 2 The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

Antimony trioxide 1309-64-4 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

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Persistence and degradability : Not readily biodegradable.

Environmental Toxicity Chemicals are not readily available as they are bound within the

polymer matrix.

Bioaccumulation Potential Chemicals are not readily available as they are bound within the

polymer matrix.

Additional advice : no data available

13. DISPOSAL CONSIDERATIONS

Product Like most thermoplastic plastics the product can be recycled. Where

> possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with

applicable federal, state/provincial and local regulations.

Contaminated packaging Recycling is preferred when possible. The generator of waste

> material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal,

state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA Refer to specific regulation.

IMO/IMDG (maritime) : Refer to specific regulation.



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15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on or exempt from the

TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

California Proposition : WARNING! This product contains a chemical known to the State of

65 California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight percent
ANTIMONY COMPOUNDS	1309-64-4	5.00 - 10.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Antimony trioxide	1309-64-4	5.00 - 10.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No. 1309-64-4

DSL : DSL status has not been determined. Quantity use in Canada may be



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restricted by regulations.

National Inventories:

Australia AICS : Not determined

China IECS : Not determined

Europe EINECS : Listed

Japan ENCS : Not determined

Korea KECI : Not determined

Philippines PICCS : Not determined

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.