## MATERIAL SAFETY DATA SHEET ITW PPFR-3010 NATURAL

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone number	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	ITW PPFR-3010 NATURAL
Product code	:	EM10010919
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Tetrabromobisphenol A - bis-2,3-	21850-44-2	10 - 30
dibromopropyl ether		
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 end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure.

#### POTENTIAL HEALTH EFFECTS

<b>Routes of Exposure:</b>	: Inhalation, Ingestion, Eyes, 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 eyes.
Skin	: Avoid skin contact. Product contains unreacted organic peroxides which may cause mild skin irritation.

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Medical Conditions Aggravated by Exposure:			
	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. FIREFIGHTING MEASURES		
Flash point	: not applicable		
Flammable Limits Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media	<ul> <li>not applicable</li> <li>not applicable</li> <li>Not relevant</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> </ul>		
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne		
Unusual Fire/Explosion Hazards	<ul> <li>contaminants.</li> <li>Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul>		
	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.		

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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. Keep away from heat. Excessive storage temperature and humidity can degrade product performance. Store below 149 °F (65 °C). Rotate stock. Product shelf life is normally 1 year maximum.
8. EX	POSU	RE CONTROLS/PERSONAL PROTECTION
Respiratory protection	:	No personal respiratory protective equipment normally required when handling the product itself. See "Engineering Measures" section below for precautions to be taken when heating or processing this material.
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	:	Heat only in areas with appropriate exhaust ventilation. During processing and cross-linking, product can give off by-products such as alcohols, acetophenone, alpha-methylstyrene, acetone, methane, and ethane. By-product vapors may be flammable. User must provide necessary precautions such as adequate ventilation to prevent accumulation and ignition of vapors. Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.
Exposure limit(s)		

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Components	Value	Exposure time	Exposure type	List:
Antimony trioxide	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

,	THISICAL AND CHEMICAL TROTERTIES
Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility	: solidEvapouration rate: Not applicable: pelletsSpecific Gravity: Not determined: NO PIGMENTBulk density: Not established: characteristicVapour pressure: not applicable: Not determinedVapour density: not applicable: not applicablepH: not applicable: insoluble::
	10. STABILITY AND REACTIVITY
Stability	: The product is stable if stored and handled as prescribed.
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	: Strong acids, Oxidizing agents, Reducing agents
Hazardous decomposition products	: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. Traces of alcohols, acetophenone, alpha-methylstyrene, acetone, methane, ethane, or other byproducts may be liberated during processing or decomposition.

#### **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
21850-44-2	Tetrabromobisphenol A - bis-2,3-dibromopropyl ether	Irritant	Eyes, Skin.

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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
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:

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).

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	: not applicable
	13. DISPOSAL CONSIDERATIONS
Product	: 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	: The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with

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	1	4. TRANSPORT INFO	RMATIO	N		
U.S. DOT Classification	:	Not regulated for transp	ortation.			
ICAO/IATA	:	Refer to specific regula	tion.			
IMO/IMDG (maritime)	:	Refer to specific regula	tion.			
	15	S. REGULATORY INF	ORMATI	ON		
US Regulations:						
OSHA Status	:	Classified as hazardous	based on o	componen	ts.	
TSCA Status	:	: All components of this product are listed on or exempt from the TSCA Inventory.				
US. EPA CERCLA Hazardo	us Sub	stances (40 CFR 302)				
not applicable						
California Proposition 65	n :	WARNING! This proc California to cause can		ns a chemi	cal kno	wn to the State of
SARA Title III Section 302 H	Extrem	ely Hazardous Substance				
Unless specific chemicals are	e identi	fied under this section, the	nis product	is Not Ap	plicable	e under this regulat
SARA Title III Section 313	Toxic C	Chemicals:				
Unless specific chemicals are	e identi	fied under this section, the			ŕ	Ŭ
Chemical Name ANTIMONY COMPOUN		CAS-No. 1309-64-4		Weigh 5.00 -	t percent	
	00		1309-04	+-4	5.00 -	10.00
Canadian Regulations:						
National Pollutant Rel	lease I		NT -	Weigh		
LI nomical Namo		CAS	CAS-No.			NPRI ID#
				percen	ι	

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WHMIS Classification	:	D2A				
WHMIS Ingredient Disclosure List						
CAS-No. 1309-64-4						
DSL	:	All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is 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.