MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

Version Number 1.1 Revision Date 02/15/2007 Page 1 of 6 Print Date 11/26/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone Emergency telephone number	:	Product Stewardship (770) 590-3500 x.3563 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	10080FRA FOIL RESIST ADDITIVE
Product code	:	FO20015907
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure:	: Inhalation, Skin contact, Ingestion
Acute exposure	
Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion	: May be harmful if swallowed.
Eyes	: May cause eye/skin irritation.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.

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MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

Version Number 1.1 Revision Date 02/15/2007 Page 2 of 6 Print Date 11/26/2011

	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 o 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 for at least 15 minutes. If ey irritation persists, seek medical attention.
Skin	: Wash off with soap and plenty of water. If skin irritation persists see medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: No data available
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 No data available No data available Not applicable Carbon dioxide blanket, water spray, dry powder, foam. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) unde fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxide of nitrogen (NOx), other hazardous materials, and smoke are all
	 5. ACCIDENTAL RELEASE MEASURES
Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
Environmental precautions	: The product should not be allowed to enter drains, water courses or th soil. Should not be released into the environment.
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binde universal binder, sawdust). Package all material in appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.
	7. HANDLING AND STORAGE
Handling	: Heat only in areas with appropriate exhaust ventilation. Processing

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MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

Version Number 1.1 Revision Date 02/15/2007 Page 3 of 6 Print Date 11/26/2011

Storage	:	fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.
8. EXP	OSUI	RE 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	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)

Components	Value	Exposure time	Exposure type	List:
Silica, amorphous,	20 mppcf	PEL:	Total dust.	Z3
fumed, crystal-free	0.0 / 0			72
	0.8 mg/m3	Time Weighted Average (TWA):		Z3
	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Color Odor Melting point/range Boiling Point: Water solubility
- liquid
 Viscous, liquid
 NOT APPLICABLE
 Very faint
 Not applicable
 Not applicable
 Immiscible
- Evaporation rate Specific Gravity: Bulk density Vapor pressure Vapour density pH
- Not established
 Not determined
 Not applicable
 Not determined
 Not determined
 Not applicable

10. STABILITY AND REACTIVITY

3/6

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MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

Version Number 1.1 Revision Date 02/15/2007 Page 4 of 6 Print Date *11/26/2011*

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., Avoid contact with acetal homopolymers and acetal copolymers during processing.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).

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
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	Eyes, Respiratory system.

LC50 / LD50

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

CAS-No.	Chemical Name	Route	Value	Species
112945-52-5	Silica, amorphous, fumed, crystal-free	Oral LD50	3,160 mg/kg	rat

	12. ECOLOGICAL INFORMATION
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential	: No data available
Additional advice	: No data available
	13. DISPOSAL CONSIDERATIONS

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MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

ersion Number 1.1 evision Date 02/15/2007	Page 5 of 6 Print Date 11/26/2011			
Product	: 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	: Refer to specific regulation.			
ICAO/IATA (air)	: Refer to specific regulation.			
IMO / IMDG (maritime)	: Refer to specific regulation.			
	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 65	n : Not applicable			
SARA Title III Section 302 I	Extremely Hazardous Substance			
Unless specific chemicals are	e identified under this section, this product is Not Applicable under this regulation			
SARA Title III Section 313 7	oxic Chemicals:			
	Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation			
Canadian Regulations:	recharge ander and been and product is rect repricable ander and regulation			
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MATERIAL SAFETY DATA SHEET 10080FRA FOIL RESIST ADDITIVE

Version Number 1.1 Revision Date 02/15/2007

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Page 6 of 6 Print Date *11/26/2011*

National Pollutant Release Inventory (NPRI)					
Not applicable	Not applicable				
WHMIS Classification	:	Not controlled.			
DSL	:	All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.			
National Inventories:					
Australia AICS	:	Listed			
China IECS	:	Listed			
Europe EINECS	:	Listed			
Japan ENCS	:	Not determined			
Korea KECI	:	Listed			
Philippines PICCS	:	Listed			
		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.