MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003 Page 1 of 6 Print Date 11/12/2011

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE	:	Product Stewardship (770) 271-5902
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	TIONA 188 WHITE PRIMARIES
Product code	:	CC10044042
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Titanium dioxide	13463-67-7	1 - 5

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

Routes of Exposure:	: Inhalation, Ingestion, Skin contact
Acute exposure	
Inhalation Ingestion Eyes	 Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.

PolyOne.

MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003 Page 2 of 6 Print Date 11/12/2011

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 seel medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	 Not applicable Not applicable Not applicable Carbon dioxide blanket, water spray, dry powder, foamnone.
Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. None
	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 12 of this MSDS for proper disposal methods.
	7. HANDLING AND STORAGE
Handling	: Take measures to prevent the build up of electrostatic charge Heat only in areas with appropriate exhaust ventilation.

MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003 Page 3 of 6 Print Date 11/12/2011

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. Refer to equipment supplier to ensure protection. : Skin and body protection long sleeved clothing : Additional Protective safety shoes : Measures Handle in accordance with good industrial hygiene and safety practice. General Hygiene : Considerations 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: Titanium dioxide 10 mg/m3 Time Weighted Average ACGIH (TWA): Total dust. 15 mg/m3 PEL: OSHA Z1 9. PHYSICAL AND CHEMICAL PROPERTIES

: Solid	Evaporation rate	: Not applicable
: Pellets	Specific Gravity	: Not determined
: WHITE	Bulk density	: Not established
: Very faint	Vapor pressure	: Not applicable
: Not determined	Vapour density	: Not applicable
: Not applicable	pН	: Not applicable
: Insoluble		
10. STABILITY AN	D REACTIVITY	
: Stable.		
: Will not occur.		
	xidizing agents and open f	lame. To avoid thermal
	not overheat.	
	 Pellets WHITE Very faint Not determined Not applicable Insoluble 10. STABILITY ANI Stable. Will not occur. 	 Pellets Specific Gravity WHITE Bulk density Very faint Vapor pressure Not determined Vapour density Not applicable pH Insoluble 10. STABILITY AND REACTIVITY : Stable. : Will not occur.

One

MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003

Page 4 of 6 Print Date 11/12/2011

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
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.

12. ECOLOGICAL INFORMATION

Persistence and degradability	:	Not readily biodegradable.	
Environmental Toxicity	:	Chemicals are not readily available as they are bound within the matrix of the polymer.	
Bioaccumulation Potential	:	Chemicals are not readily available as they are bound within the matrix of the polymer.	
Additional advice	:	No data available	
	13	3. 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.	
	1	4. TRANSPORT INFORMATION	
U.S. DOT Classification ICAO/IATA (air)	:	Not regulated for transportation. Refer to specific regulation.	

 $IMO \ / \ IMDG \ (maritime) \qquad \qquad : \quad Refer \ to \ specific \ regulation.$

PolyOne.

MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003 Page 5 of 6 Print Date 11/12/2011

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 S	Substances (40 CFR 302)
Not applicable	
California Proposition 65	: This product does not contain a substance listed by California Prop 65
SARA Title III Section 302 Extr	remely Hazardous Substance
Not applicable	
SARA Title III Section 313 Tox	ic Chemicals:
Not applicable	ic Chemicals:
Not applicable	
Not applicable Canadian Regulations:	
Not applicable Canadian Regulations: National Pollutant Releas	
Canadian Regulations: National Pollutant Releas Not applicable	se Inventory (NPRI)
Not applicable Canadian Regulations: National Pollutant Releas Not applicable WHMIS Classification DSL	se Inventory (NPRI) : D2B : All components of this product are on the Canadian Domestic
Not applicable Canadian Regulations: National Pollutant Releas Not applicable WHMIS Classification DSL	se Inventory (NPRI) : D2B : All components of this product are on the Canadian Domestic
Not applicable Canadian Regulations: National Pollutant Releas Not applicable WHMIS Classification DSL National Inventories:	 se Inventory (NPRI) : D2B : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.
Not applicable Canadian Regulations: National Pollutant Releas Not applicable WHMIS Classification DSL National Inventories: Australia AICS	 se Inventory (NPRI) : D2B : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt. : Listed
Not applicable Canadian Regulations: National Pollutant Releas Not applicable WHMIS Classification DSL National Inventories: Australia AICS China IECS	se Inventory (NPRI) : D2B : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt. : Listed : Listed



MATERIAL SAFETY DATA SHEET TIONA 188 WHITE PRIMARIES

Version Number 1.0 Revision Date 10/10/2003 Page 6 of 6 Print Date 11/12/2011

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 when used in combination with any other materials and/or in any particular process or processing conditions.