MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014

Page 1 of 8 Print Date 4/9/2014

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	:	0010488 GYA STD LLDPE MASTERBATCH
Product code	:	CC10010488
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Titanium dioxide	13463-67-7	1 - 5
Carbon black	1333-86-4	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

: Inhalation, Ingestion, Skin contact		
: 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.		
: Experience shows no unusual dermatitis hazard from routine handling.		
: Refer to Section 11 for Toxicological Information.		



MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 2 of 8 Print Date 4/9/2014

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 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, 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 Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	 not applicable not applicable 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. 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.
	7. HANDLING AND STORAGE
Handling	: Take measures to prevent the build up of electrostatic charge. Heat only in areas with appropriate exhaust ventilation.

<u>PolyOne</u>

MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 3 of 8 Print Date 4/9/2014

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	:	Heat only in areas with appropriate exhaust ventilation. Provide appropriate exhaust ventilation at machinery.

Exposure limit(s)



MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 4 of 8 Print Date 4/9/2014

Components	Value	Exposure time	Exposure type	List:
Carbon black	3.5 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.1 mg/m3	Recommended exposure limit (REL):		NIOSH
	3.5 mg/m3	PEL:		OSHA Z1
	3.5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	3.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	7 mg/m3	Short Term Exposure Limi (STEL):	it	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):		ACGIH
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limi (STEL):	t as Ti	MX OEL
	9. PHYSIC	CAL AND CHEMICAL PH	ROPERTIES	
Form	: solid	Eva	oouration rate : No	t applicable
Appearance:pelletsColour:BLUEOdour:very faint		1		t determined
			•	t established
		faint Vap	our pressure : not	applicable
Melting point/range	: Not o	letermined Vap		applicable
Boiling Point:	: not a	pplicable pH	: not	applicable
				11
	: insol			
	: insol		IVITY	
Water solubility	: insol 10. S	uble		
Water solubility	: insol 10. s : T	uble STABILITY AND REACT		
Water solubility Stability Hazardous Polymerizatio	: insol 10. § : T on : W : K	uble TABILITY AND REACT he product is stable if stored	and handled as prescribed	d.
Water solubility Stability Hazardous Polymerizatio Conditions to avoid Incompatible Materials	: insol 10. § : T on : W : K d	uble STABILITY AND REACT he product is stable if stored /ill not occur. ieep away from oxidizing ag	and handled as prescribed ents and open flame. To a at.	d.

11. TOXICOLOGICAL INFORMATION



MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 5 of 8 Print Date 4/9/2014

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.
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.

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
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
13463-67-7	Titanium dioxide	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:

Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

12. ECOLOGICAL INFORMATION

Persistence and degradability

: Not readily biodegradable.

PolyOne.

MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Page 6 Print Date 4/9/2
: Chemicals are not readily available as they are bound within the polymer matrix.
: Chemicals are not readily available as they are bound within the polymer matrix.
: no data available
13. DISPOSAL CONSIDERATIONS
: 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.
: 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
: Not regulated for transportation.
: Refer to specific regulation.
: Refer to specific regulation.
15. REGULATORY INFORMATION
: Classified as hazardous based on components.
: All components of this product are listed on or exempt from the TSCA Inventory.
s Substances (40 CFR 302)
: Not applicable

MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 7 of 8 Print Date 4/9/2014

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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)			
Chemical Name	CAS-No.	Weight	NPRI ID#
		percent	
Phthalocyanine green	1328-53-6	1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.	
1333-86-4	
1328-53-6	

:

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	:	Listed
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

PolyOne.

MATERIAL SAFETY DATA SHEET 0010488 GYA STD LLDPE MASTERBATCH

Version Number 1.0 Revision Date 04/01/2014 Page 8 of 8 Print Date 4/9/2014

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.