MATERIAL SAFETY DATA SHEET

X ST-1676-001-02 Black

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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 :	X ST-1676-001-02 Black
Product code :	EM10027399
Chemical Name :	Mixture
CAS-No. :	Mixture
Product Use :	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Calcium carbonate	1317-65-3	10 - 30
Carbon black	1333-86-4	10 - 30

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 Skin	 Particulates, like other inert materials can be mechanically irritating. May be harmful if swallowed. Particulates, like other inert materials can be mechanically irritating. Experience shows no unusual dermatitis hazard from routine handling. 		
Chronic exposure	: Refer to Section 11 for Toxicological Information.		

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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.

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Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.		
8. EX	POSURE 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:
Calcium carbonate	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	10 mg/m3	Time Weighted Average		MX OEL
		(TWA):		
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
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 Limit (STEL):		MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance solidpellets, Slabs

Evaporation rate Specific Gravity Not applicableNot determined

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Colour Odour Melting point/range Boiling Point: Water solubility	:	BLACK very faint Not determined not applicable insoluble	Bulk density Vapour pressure Vapour density pH	:	Not established not applicable not applicable not applicable
		10. STABILITY AND RE	EACTIVITY		
Stability		: The product is stable if	stored and handled as	presc	cribed.
Hazardous Polymerization		: Will not occur.			
Conditions to avoid		: To avoid thermal decon	nposition, do not overh	ieat.	
Incompatible Materials		: Strong acids, oxidizing	and reducing agents		
Hazardous decomposition products		: Carbon dioxide (CO2), (NOx), other hazardous		· · ·	0

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
1317-65-3	Calcium carbonate	Irritant	Eyes, Skin.
		Systemic effects	Eyes, Skin, 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

Additional Health Hazard Information:

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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

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 : Like most thermoplastic plastics the product can be recycled. Yoposible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper was 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		
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 : Like most thermoplastic plastics the product can be recycled. Yopossible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper was 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	Not readily biodegradable.	Persistence and degradability :
polymer matrix. Additional advice : not applicable 13. DISPOSAL CONSIDERATIONS Product : Like most thermoplastic plastics the product can be recycled. You possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper was 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	Chemicals are not readily available as they are bound within the polymer matrix.	Environmental Toxicity :
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Contaminated packagingRecycling is preferred when possible. The generator of waste	3. DISPOSAL CONSIDERATIONS	1
	generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with	Product :
	material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal,	Contaminated packaging :
14. TRANSPORT INFORMATION	4. TRANSPORT INFORMATION	1
U.S. DOT Classification : Not regulated for transportation.	Not regulated for transportation.	U.S. DOT Classification :
ICAO/IATA : Refer to specific regulation.	Refer to specific regulation.	ICAO/IATA :
IMO/IMDG (maritime):Refer to specific regulation.	Refer to specific regulation.	IMO/IMDG (maritime) :
15. REGULATORY INFORMATION	. REGULATORY INFORMATION	15
US Regulations:		US Regulations:
OSHA Status : Classified as hazardous based on components.	Classified as hazardous based on components.	OSHA Status :
	classified as iniziated as based on components.	

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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 : Not applicable 65 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 Weight NPRI ID# CAS-No. percent Zinc stearate 557-05-1 0.10 - 1.00 WHMIS Classification : D2A WHMIS Ingredient Disclosure List CAS-No. 1333-86-4 DSL All components of this product are on the Canadian Domestic : Substances List (DSL) or are exempt.

National Inventories:

Australia AICS	:	Not determined
China IECS	:	Not determined
Europe EINECS	:	Not determined

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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.