MATERIAL SAFETY DATA SHEET X LB-TPU 4419-001-B

Version Number 1.0 Revision Date 11/21/2013

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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 LB-TPU 4419-001-B
Product code	:	EM10031011
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Molybdenum (IV) sulfide	1317-33-5	1 - 5
Glass, oxide	65997-17-3	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

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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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 CONTROL	S/PERSONAL PROTECTION			
Respiratory protection	: No personal respiratory protective equipment normally required.				
Eye/Face Protection	: Safety glasses with side-shields				
Hand protection	: Protective glov	Protective gloves			
Skin and body protection	: Long sleeved c	Long sleeved clothing			
Additional Protective Measures	: Safety shoes	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.				
9	. PHYSICAL AND CH	HEMICAL PROPERTIES			
Form Appearance	: solid : pellets, Slabs	Evapouration rate: Not applicableSpecific Gravity: Not determined			
Colour Odour Melting point/range Boiling Point: Water solubility	 NO PIGMENT very faint Not determined not applicable insoluble 	Bulk density: Not establishedVapour pressure: not applicableVapour density: not applicablepH: not applicable			
Odour Melting point/range Boiling Point:	very faintNot determinednot applicableinsoluble	Vapour pressure: not applicableVapour density: not applicable			
Odour Melting point/range Boiling Point:	 very faint Not determined not applicable insoluble 10. STABILITY A	Vapour pressure:not applicableVapour density:not applicablepH:not applicable			
Odour Melting point/range Boiling Point: Water solubility	 very faint Not determined not applicable insoluble 10. STABILITY A	Vapour pressure : not applicable Vapour density : not applicable pH : not applicable			
Odour Melting point/range Boiling Point: Water solubility Stability	 very faint Not determined not applicable insoluble 10. STABILITY A The product is some second secon	Vapour pressure : not applicable Vapour density : not applicable pH : not applicable			
Odour Melting point/range Boiling Point: Water solubility Stability Hazardous Polymerization	 very faint Not determined not applicable insoluble 10. STABILITY A The product is some sectors of the product is some sectors. Will not occur. To avoid therm 	Vapour pressure : not applicable Vapour density : not applicable pH : not applicable AND REACTIVITY stable if stored and handled as prescribed.			
Odour Melting point/range Boiling Point: Water solubility Stability Hazardous Polymerization Conditions to avoid	 very faint Not determined not applicable insoluble 10. STABILITY The product is some statements Will not occur. To avoid therm Strong acids, on Carbon dioxide 	Vapour pressure : not applicable Vapour density : not applicable pH : not applicable AND REACTIVITY stable if stored and handled as prescribed. al decomposition, do not overheat.			

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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:

	Chemical Name	Effect	Target Organ			
1317-33-5	Molybdenum (IV) sulfide	Irritant	Eyes, Skin.			
	12. ECOLOGIC	AL INFORMATIC)N			
Persistence and degrada	bility : Not readily bio	degradable.				
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 polymer matrix.		e as they are bound within the				
Additional advice	litional advice : not applicable					
	13. DISPOSAL (CONSIDERATION	IS			
Product	possible recycl generator of wa classification, t	ing is preferred to d aste material has the transportation and d	the product can be recycled. Where isposal or incineration. The responsibility for proper waste isposal in accordance with and local regulations.			
Contaminated packagin	material has th transportation a	: 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. TRANSPOR	T INFORMATIO	N			
U.S. DOT Classification	n : Not regulated f	for transportation.				
ICAO/IATA	: Refer to specif	ic regulation.				
IMO/IMDG (maritime) : Refer to specific regulation.						
	15. REGULATO	RY INFORMATIO	DN			
US Regulations:						
OSHA Status	: Classified as h	azardous based on c	omponents.			
TCCA Status	: All componen	ts of this product ar	e listed on or exempt from the			
TSCA Status	_	1				

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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)

not applicable

WHMIS Classification	:	Not controlled.
DSL	:	DSL status has not been determined. Quantity use in Canada may be restricted by regulations.

National Inventories:

Australia AICS	:	Not determined
China IECS	:	Not determined
Europe EINECS	:	Not determined
Japan ENCS	:	Not determined
Korea KECI	:	Not determined
Philippines PICCS	:	Not determined

16. OTHER INFORMATION

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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.