#### MATERIAL SAFETY DATA SHEET

### Transmission Silver

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#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

Telephone Emergency telephone	:	Product Stewardship (770) 271-5902 CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	Transmission Silver
Product code	:	CC10100789
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

#### 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dimethyl-7-oxo-, 2-ethylhexyl	57583-35-4	1 - 5
ester		
Aluminum	7429-90-5	1 - 5
Glyceryl monostearate	31566-31-1	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Dioctyltin bis(2-ethylhexylmercaptoacetate)	15571-58-1	1 - 5
Mica	12001-26-2	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	: Particulates, like other inert materials can be mechanically irritating. Excessive inhalation of product vapors, especially during heating or processing, may be irritating to respiratory system.
Ingestion	: May be harmful if swallowed.



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Eyes Skin	<ul><li>Particulates, like other inert materials can be mechanically irritating.</li><li>Experience shows no unusual dermatitis hazard from routine handling</li></ul>
Chronic exposure	: Refer to Section 11 for Toxicological Information.
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 see medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> </ul>
Special Fire Fighting Procedures	: Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.
Unusual Fire/Explosion Hazards	: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.
	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 no be allowed to enter drains, water courses or the soil.



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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 13 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.					
Storage :	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.					
8. EXPOSU	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)						

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Components	Value	Exposure time	Exposure type	List:
8-Oxa-3,5-dithia-4-sta nnatetradecanoic acid, 10-ethyl-4,4-dimethyl- 7-oxo-, 2-ethylhexyl ester	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	ACGIH
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	ACGIH
	0.1 mg/m3	PEL:	as Sn	OSHA Z1
	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	MX OEL
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	MX OEL
Aluminum	10 mg/m3	Time Weighted Average (TWA):	Dust.	ACGIH
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder. as Al	ACGIH
	15 mg/m3	PEL:	Total dust. as Al	OSHA Z1
	5 mg/m3	PEL:	Respirable dust. as Al	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder.	MX OEL
	10 mg/m3	Time Weighted Average (TWA):	Dust.	MX OEL
Glyceryl monostearate	10 mg/m3	Time Weighted Average (TWA):		ACGIH
Mica	3 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	3 mg/m3	Time Weighted Average (TWA):		MX OEL
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):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL
Dioctyltin bis(2-ethylhexylmerca ptoacetate)	0.1 mg/m3	PEL:	as Sn	OSHA Z1
	0.1 mg/m3	Time Weighted Average (TWA):	as Sn	ACGIH
	0.2 mg/m3	Short Term Exposure Limit (STEL):	as Sn	ACGIH

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color

: Solid : pellets : GREY Evaporation rate : Not applicable Specific Gravity : Not determined Bulk density : Not established Bulk density

: Not established

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Odour Melting point/range Boiling Point: Water solubility	<ul><li>Very faint</li><li>Not determined</li><li>Not applicable</li><li>Insoluble</li></ul>	Vapour pressure Vapour density pH	<ul><li>Not applicable</li><li>Not applicable</li><li>Not applicable</li></ul>
	10. STABILITY AND R	EACTIVITY	
Stability	: Stable.		
Hazardous Polymerization	: Will not occur.		
Conditions to avoid	: Keep away from oxidiz decomposition, do not		ame. To avoid thermal
Incompatible Materials	acetal copolymers and processing. At process destructive and involve mechanically clean pro	with amine containing sing conditions, these r e rapid degradation. The pressing equipment to a erials from coming in coming i	naterials are mutually horoughly purge and
Hazardous decomposition products		ide (HCl), other hazard Prolonged heating (ap (200 °C) or short term act decomposition and	dous materials, and pproximately 30 minutes heating at 482 °F (250

### **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
57583-35-4	8-Oxa-3,5-dithia-4-stannat etradecanoic acid, 10-ethyl-4,4-dimethyl-7-o xo-, 2-ethylhexyl ester	Irritant	Eyes, Skin.
7429-90-5	Aluminum	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
15571-58-1	Dioctyltin bis(2-ethylhexylmercaptoa cetate)	Systemic effects	Respiratory system, central nervous system (CNS).
12001-26-2	Mica	Systemic effects	Respiratory system.



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#### 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
15571-58-1	Dioctyltin bis(2-ethylhexylmercaptoa cetate)	Oral LD50	2,100 mg/kg	rat

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.

#### **12. ECOLOGICAL INFORMATION**

Environmental Toxicity		Chemicals are not readily available as they are bound within the
Environmental Toxicity	•	polymer matrix.
Bioaccumulation Potential	:	Chemicals are not readily available as they are bound within the polymer matrix.
Additional advice	:	No data available
	1	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 materia has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
		4. TRANSPORT INFORMATION

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						<u></u>
U.S. DOT Classification	:	Not regulated for transp	ortation.			
ICAO/IATA (air)	:	Refer to specific regulat	ion.			
IMO / IMDG (maritime)	:	Refer to specific regulat	ion.			
	15	. REGULATORY INFO	ORMATIO	N		
US Regulations:						
OSHA Status	:	Classified as hazardous	based on co	mponen	ts.	
TSCA Status	:	All components of this p Inventory.	product are l	isted on	or exemp	pt from the TSCA
US. EPA CERCLA Hazardous S	Sub	stances (40 CFR 302)				
Not applicable						
California Proposition 65	:	Not applicable				
SARA Title III Section 302 Extr	rem	ely Hazardous Substance				
Unless specific chemicals are id	enti	fied under this section, th	is product is	s Not Ar	plicable	under this regulation
		· · · · · · · · · · · · · · · · · · ·	1	r	1	
GADA T'4. III G		NI				
SARA Title III Section 313 Tox						
Unless specific chemicals are id Chemical Name	enti	fied under this section, th	CAS-No.	1	Weight	
ALUMINUM (FUME OR DU	JST	')	7429-90-5		1.00 - 5	
Constitute Deve between						
Canadian Regulations:						
National Pollutant Releas	se Iı		Ť	XX 7 1 1	. 0/	
Chemical Name Aluminum		CAS-1 7429-		Weigh 1.00 -		NPRI ID# 12
				1		
WHMIS Classification	:	D2A				
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WHMIS Ingredient Disclosure List			
CAS-No. 57583-35-4 7429-90-5 12001-26-2 15571-58-1			
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	
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.