### MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

#### Version Number 1.1 Revision Date 03/30/2014

Page 1 of 7 Print Date 4/8/2014

#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

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	:	15370NV ECOLUTION SILVER SHIMMER
Product code	:	FO20024739
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Aluminum	7429-90-5	5 - 10

#### **3. HAZARDS IDENTIFICATION**

#### **EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

#### POTENTIAL HEALTH EFFECTS

<b>Routes of Exposure:</b>	: Inhalation, Skin contact, Ingestion
Acute exposure	
Inhalation	: Inhalation of airborne droplets may cause irritation of the respiratory tract.
Ingestion	: May be harmful if swallowed.
Eyes	: May cause eye and skin irritation.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.



## MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

Version Number 1.1 Revision Date 03/30/2014 Page 2 of 7 Print Date 4/8/2014

overheating or combustion. When symptoms persist doubt seek medical advice.         Ingestion       :       Do not induce vomiting without medical advice. W persist or in all cases of doubt seek medical advice.         Eyes       :       Rinse immediately with plenty of water for at least irritation persists, seek medical attention.         Skin       :       Wash off with soap and plenty of water. If skin irrit seek medical attention.         Skin       :       Wash off with soap and plenty of water. If skin irrit seek medical attention.         Flash point       :       no data available         Flash point       :       no data available         Flammable Limits       :       no data available         Auto-ignition temperature       :       Not applicable         Suitable extinguishing media       :       Carbon dioxide blanket, Water spray, Dry powder, I         Special Fire Fighting       :       Fullface self-contained breathing apparatus (SCBA) pressure mode should be worn to prevent inhalation contaminants.         Unusual Fire/Explosion       :       May emit Hydrogen Chloride (HCl) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.         Personal precautions       :       Wear appropriate personal protection during cleanu impervious gloves, boots and coveralls.         Environmental precautions       :       The product should not	Medical Conditions Aggravated by Exposure:	: None known.
overheating or combustion. When symptoms persist doubt seek medical advice.         Ingestion       :       Do not induce vomiting without medical advice. W persist or in all cases of doubt seek medical advice.         Eyes       :       Rinse immediately with plenty of water for at least irritation persists, seek medical attention.         Skin       :       Wash off with soap and plenty of water. If skin irrit seek medical attention.         Skin       :       Wash off with soap and plenty of water. If skin irrit seek medical attention.         Flash point       :       no data available         Flash point       :       no data available         Flammable Limits       :       no data available         Suitable extinguishing media       :       no data available         Suitable extinguishing media       :       Carbon dioxide blanket, Water spray, Dry powder, I         Special Fire Fighting       :       Fullface self-contained breathing apparatus (SCBA) pressure mode should be worn to prevent inhalation contaminants.         Unusual Fire/Explosion       :       May emit Hydrogen Chloride (HCI) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.         Personal precautions       :       Wear appropriate personal protection during cleanu impervious gloves, boots and coveralls.         Environmental precautions       :       The product shou		4. FIRST AID MEASURES
Eyes       : Rinse immediately with plenty of water for at least irritation persists, seek medical attention.         Skin       : Wash off with soap and plenty of water. If skin irrit seek medical attention.         Skin       : Wash off with soap and plenty of water. If skin irrit seek medical attention.         Flash point       : no data available         Flammable Limits       : no data available         Lower explosion limit       : no data available         Suitable extinguishing media       : Carbon dioxide blanket, Water spray, Dry powder, I         Special Fire Fighting       : Fullface self-contained breathing apparatus (SCBA) pressure mode should be worn to prevent inhalation contaminants.         Unusual Fire/Explosion       : May emit Hydrogen Chloride (HCl) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.         Personal precautions       : Wear appropriate personal protection during cleanul impervious gloves, boots and coveralls.         Environmental precautions       : The product should not be allowed to enter drains, w the soil. Should not be released into the environment of the environment of the soil. Should not be released into the environment of the soil. Should not be released into the environment of the soil. Should not be released into the environment of the soil. Should not be released into the environment of the soil. Should not be released into the environment of the soil. Should not be allowed to enter drains, w the soil. Should not be released into the environment of the soil. Should not be released into the environm	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.
Skin       : Wash off with soap and plenty of water. If skin irritiseek medical attention.         Skin       : Wash off with soap and plenty of water. If skin irritiseek medical attention.         Flash point       : no data available         Flammable Limits       : no data available         Upper explosion limit       : no data available         Auto-ignition temperature       : Not applicable         Suitable extinguishing media       : Carbon dioxide blanket, Water spray, Dry powder, I         Special Fire Fighting       : Fullface self-contained breathing apparatus (SCBA)         procedures       : Fullface self-contained breathing apparatus (SCBA)         Unusual Fire/Explosion       : May emit Hydrogen Chloride (HCl) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.         Personal precautions       : Wear appropriate personal protection during cleanu impervious gloves, boots and coveralls.         Environmental precautions       : The product should not be allowed to enter drains, withe soil. Should not be released into the environmental precautions	Ingestion	: Do not induce vomiting without medical advice. When symptoms persist or in all cases of doubt seek medical advice.
seek medical attention.         seek medical attention.         seek medical attention.         Site K medical attention.         Flash point         Flash available         Lower explosion limit         Fullface self-contained breathing apparatus (SCBA)         pressure mode should be worn to prevent inhalation contaminants.         Unusual Fire/Explosion         Hazards       May emit Hydrogen Chloride (HCl) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.         Personal precautions         F Wear appropriate personal protection during cleanu impervious gloves, boots and coveralls.	Eyes	: Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.
Flash point       : no data available         Flammable Limits	Skin	: Wash off with soap and plenty of water. If skin irritation persists seek medical attention.
Flammable Limits       upper explosion limit       : no data available         Lower explosion limit       : no data available         Auto-ignition temperature       : Not applicable         Suitable extinguishing media       : Carbon dioxide blanket, Water spray, Dry powder, I         Special Fire Fighting       : Fullface self-contained breathing apparatus (SCBA)         Procedures       : Fullface self-contained breathing apparatus (SCBA)         Unusual Fire/Explosion       : May emit Hydrogen Chloride (HCl) or Carbon Mon         Hazards       : May emit Hydrogen Chloride (HCl) or Carbon Mon         fire conditions. Carbon dioxide (CO2), carbon mon       oxides of nitrogen (NOx), other hazardous materials         all possible.       : Wear appropriate personal protection during cleanuly impervious gloves, boots and coveralls.         Environmental precautions       : The product should not be allowed to enter drains, w the soil. Should not be released into the environment		5. FIREFIGHTING MEASURES
Upper explosion limit Lower explosion limit:no data availableAuto-ignition temperature Suitable extinguishing media:Not applicableSpecial Fire Fighting Procedures:Fullface self-contained breathing apparatus (SCBA) pressure mode should be worn to prevent inhalation contaminants.Unusual Fire/Explosion Hazards:May emit Hydrogen Chloride (HCl) or Carbon Mon fire conditions. Carbon dioxide (CO2), carbon mon oxides of nitrogen (NOx), other hazardous materials all possible.Personal precautions:Wear appropriate personal protection during cleanuly impervious gloves, boots and coveralls.Environmental precautions:The product should not be allowed to enter drains, v the soil. Should not be released into the environment	Flash point	: no data available
Personal precautions       : Wear appropriate personal protection during cleanup impervious gloves, boots and coveralls.         Environmental precautions       : The product should not be allowed to enter drains, we the soil. Should not be released into the environment of the soil. Should not be released into the environment of the soil.	Upper explosion limit Lower explosion limit Auto-ignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	<ul> <li>no data available</li> <li>Not applicable</li> <li>Carbon dioxide blanket, Water spray, Dry powder, Foam.</li> <li>Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.</li> <li>May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.</li> </ul>
<ul> <li>Environmental precautions</li> <li>The product should not be allowed to enter drains, w the soil. Should not be released into the environmental precaution</li> </ul>		6. ACCIDENTAL RELEASE MEASURES
the soil. Should not be released into the environment	Personal precautions	: Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.
	Environmental precautions	: The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.
	Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal.
7. HANDLING AND STORAGE		7. HANDLING AND STORAGE



## MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

Version Number 1.1 Revision Date 03/30/2014		Page 3 of 7 Print Date <i>4/8/2014</i>
Handling	:	Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.
8. EXP	OSU	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)		



### MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

Version Number 1.1 Revision Date 03/30/2014 Page 4 of 7 Print Date 4/8/2014

Components	Value	Exposure time	Exposure type	List:
Aluminum	1 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Welding fume or pyrophoric powder. as Al	NIOSH
	15 mg/m3	PEL:	Total dust. as Al	OSHA Z1
	5 mg/m3	PEL:	Respirable dust. as Al	OSHA Z1
	15 mg/m3	Time Weighted Average (TWA):	Total dust. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Respirable dust. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Fume. as Al	OSHA Z1A
	5 mg/m3	Time Weighted Average (TWA):	Welding fume.	MX OEL
	10 mg/m3	Time Weighted Average (TWA):	Dust.	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Pyrophoric powder.	MX OEL
Silica, amorphous, fumed, crystal-free	0.8 mg/m3	Time Weighted Average (TWA):		Z3
	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	MX OEL

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility liquid
viscous, liquid
GREY
very faint
not applicable
not applicable
immiscible

Evapouration rate Specific Gravity Bulk density Vapour pressure Vapour density pH Not establishedNot determinedNot applicableNot determinedNot determined

: Not applicable

#### **10. STABILITY AND REACTIVITY**

Stability

: The product is stable if stored and handled as prescribed.

Hazardous Polymerization

: Will not occur.



# MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

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Version Number 1.1 Revision Date 03/30/2014		Page 5 of 7 Print Date <i>4/8/2014</i>
Conditions to avoid	:	Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.
Incompatible Materials	:	Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.
Hazardous decomposition products	:	Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), hydrogen chloride (HCl), other hazardous materials, and smoke are all possible. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).

#### 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
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	Eyes, Respiratory system.
7429-90-5	Aluminum	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, 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
112945-52-5	Silica, amorphous, fumed, crystal-free	Oral LD50	3,160 mg/kg	rat

	12. ECOLOGICAL INFORMATION
Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Environmental toxicity has not been established for this mixture as a whole.
Bioaccumulation Potential	: no data available
Additional advice	: no data available
	13. DISPOSAL CONSIDERATIONS
Product	: Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste



# MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

sion Number 1.1 rision Date 03/30/2014				P Print Date	age 6 o 4/8/20
		classification, transporta applicable federal, state/			
Contaminated packaging	:	Recycling is preferred w material has the responsi transportation and dispo- state/provincial and loca	ibility for proper sal in accordance	waste classification,	al,
	1	4. TRANSPORT INFO	RMATION		
U.S. DOT Classification	:	Refer to specific regulation	ion.		
ICAO/IATA	:	Refer to specific regulation	ion.		
IMO/IMDG (maritime)	:	Refer to specific regulation	ion.		
	15	. REGULATORY INFO	RMATION		
US Regulations:					
OSHA Status	:	Classified as hazardous	based on compon	ents.	
TSCA Status	:	All components of this pTSCA Inventory.	product are listed	on or exempt from th	ie
US. EPA CERCLA Hazardou	s Sub	stances (40 CFR 302)			
not applicable					
California Proposition 65	:	Not applicable			
SARA Title III Section 302 E	xtrem	ely Hazardous Substance			
Unless specific chemicals are	identi	fied under this section, thi	is product is Not	Applicable under this	regulati
SARA Title III Section 313 T	ovic (	Themicals			
Unless specific chemicals are			is product is Not	Applicable under this	regulati
Chemical Name			CAS-No.	Weight percent	1084144
ALUMINUM (FUME OR DOR DUST)	DUST	)ALUMINUM (FUME	7429-90-5	5.00 - 10.00	
Canadian Regulations:					

PolyOne

## MATERIAL SAFETY DATA SHEET 15370NV ECOLUTION SILVER SHIMMER

Version Number 1.1 Revision Date 03/30/2014 Page 7 of 7 Print Date 4/8/2014

Chemical Name			CAS-No.	Weight	NPRI ID#
				percent	
Aluminum			7429-90-5	5.00 - 10.00	
WHMIS Classification		D2B			
withing Classification	•	D2D			
WHMIS Ingredient Dis	closu	ire List			
CAS-No. 7429-90-5					
DSL	:	All components Substances List		are on the Canadian empt.	n Domestic
tional 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			

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.