

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****SILVER**Version Number 1.0
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Print Date 1/17/2012**1. PRODUCT AND COMPANY IDENTIFICATION****POLYONE CORPORATION**
33587 Walker Road, Avon Lake, OH 44012Telephone : 1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).Product name : SILVER
Product code : CC10138934
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications**2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS**

Components	CAS-No.	Weight percent
Aluminum	7429-90-5	1 - 5
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Mica	12001-26-2	10 - 30
Titanium dioxide	13463-67-7	10 - 30

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**Routes of Exposure:** : 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 : Irritating to eyes and respiratory system.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

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Print Date 1/17/2012**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. Seek medical attention after significant exposure.
- Ingestion** : Do not induce vomiting without medical advice. Seek medical attention if necessary.
- Eyes** : Rinse immediately with plenty of water 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. FIRE-FIGHTING MEASURES

- Flash point** : Greater than 200 °F (93 °C)
- Flammable Limits**
- Upper explosion limit : Not applicable
 - Lower explosion limit : Not applicable
- Autoignition temperature** : Not applicable
- Suitable extinguishing media** : Carbon dioxide blanket, Dry powder, Foam.
- 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 (NO_x), 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** : 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. Refer to Section 13 of this MSDS for proper disposal methods.

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7. HANDLING AND STORAGE

- Handling : Heat only in areas with appropriate exhaust ventilation.
- Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Respiratory protection : Under normal handling conditions a respirator may not be 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:	
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	
	Mica	3 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
		3 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
3 mg/m3		Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A	
3 mg/m3		Time Weighted Average (TWA):		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	
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 Limit (STEL):	as Ti	MX OEL	

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid	Evaporation rate	: Not established
Appearance	: viscous, liquid	Specific Gravity	: Not determined
Colour	: GREY	Bulk density	: Not applicable
Odour	: very faint	Vapour pressure	: Not determined
Melting point/range	: not applicable	Vapour density	: Not determined
Boiling Point:	: not applicable	pH	: Not applicable
Water solubility	: immiscible		

10. STABILITY AND REACTIVITY

Stability	: Stable
Hazardous Polymerization	: Will not occur.
Conditions to avoid	: Keep away from oxidizing agents and open flame.
Incompatible Materials	: Incompatible with strong acids and oxidizing agents.
Hazardous decomposition products	: Carbon dioxide (CO ₂), carbon monoxide (CO), oxides of nitrogen (NO _x), other hazardous materials, and smoke are all possible.

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
7429-90-5	Aluminum	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory system.
112945-52-5	Silica, amorphous, fumed, crystal-free	Irritant	Eyes, Respiratory system.
12001-26-2	Mica	Systemic effects	Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	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

Carcinogenicity

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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

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Adverse ecological impact is not known or expected under normal use.
- Bioaccumulation Potential : Does not bioaccumulate.
- 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 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 material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

- U.S. DOT Classification : Not regulated for transportation.
- ICAO/IATA : Not regulated for transportation.
- IMO/IMDG (maritime) : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

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OSHA Status : Classified as hazardous based on components.

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
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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

Chemical Name	CAS-No.	Weight percent
ALUMINUM (FUME OR DUST)	7429-90-5	1.00 - 5.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Aluminum	7429-90-5	1.00 - 5.00	
Phenol, nonyl-, phosphite (3:1)	26523-78-4	1.00 - 5.00	
		1.00 - 5.00	
		1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
7429-90-5
12001-26-2

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

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National Inventories:

Australia AICS	:	Listed
China IECS	:	Not determined
Europe EINECS	:	Not determined
Japan ENCS	:	Not determined
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 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.