MATERIAL SAFETY DATA SHEET GUN METAL

Version Number 1.0 Revision Date 07/08/2009 Page 1 of 7 Print Date 1/8/2012

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	:	GUN METAL
Product code	:	CC10116201
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	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	: Resin particles, like other inert materials, can be mechanically irritating.
Ingestion	: May be harmful if swallowed.
Eyes	: Particulates, like other inert materials can be mechanically irritating.
Skin	: Experience shows no unusual dermatitis hazard from routine handling.
Chronic exposure	: Refer to Section 11 for Toxicological Information.
Medical Conditions Aggravated by Exposure:	: None known.

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MATERIAL SAFETY DATA SHEET **GUN METAL**

Version Number 1.0 Revision Date 07/08/2009 Page 2 of 7 Print Date 1/8/2012

		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 of 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. FIRE-FIGHTING MEASURES
Flash point	:	not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting Procedures Unusual Fire/Explosion Hazards	::	not applicable not applicable not applicable Class D special powder against metal fire, Dry chemical. Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants. Dust containing aluminum powder can be explosive. Do not use a solid water stream as it may scatter and spread fire. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other
	6. A	hazardous materials, and smoke are all possible.
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. 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.

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MATERIAL SAFETY DATA SHEET **GUN METAL**

Version Number 1.0	
Revision Date 07/08/2009	

Page 3 of 7 Print Date 1/8/2012

Storage

: Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection	No personal respiratory protective equi dusty conditions occur wear appropriat	
Eye/Face Protection	Safety glasses with side-shields	
Hand protection	Protective gloves. Refer to equipment	supplier to ensure protection.
Skin and body protection	Long sleeved clothing	
Additional Protective Measures	Safety shoes	
General Hygiene Considerations	Handle in accordance with good indust practice. Wash hands before breaks an	
Engineering measures	Heat only in areas with appropriate exhappropriate exhaust ventilation at mach	
Exposure limit(s)		

Exposure limit(s)

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MATERIAL SAFETY DATA SHEET **GUN METAL**

Version Number 1.0 Revision Date 07/08/2009 Page 4 of 7 Print Date 1/8/2012

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

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- solid
 powder, granular
 GREY
 very faint
 Not determined
 not applicable
 insoluble
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not applicable
 Not determined
 Not determined
 not applicable
 not applicable
 not applicable

10. STABILITY AND REACTIVITY			
Stability	Stable		
Hazardous Polymerization	Will not occur.		
Conditions to avoid	To avoid thermal decomposition, or oxidizing agents and open flame.	do not overheat. Keep away from	
Incompatible Materials	Incompatible with acids and bases compounds	., Oxidizing agents, Halogenated	

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MATERIAL SAFETY DATA SHEET GUN METAL

Version Number 1.0 Revision Date 07/08/2009

Page 5 of 7 Print Date 1/8/2012

Hazardous decomposition products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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.

	12. ECOLOGICAL INFORMATION			
Persistence and degradability	: Not readily biodegradable.			
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 the polymer matrix.			
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	: Refer to specific regulation.			
IMO / IMDG (maritime)	: Refer to specific regulation.			
	15. REGULATORY INFORMATION			

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MATERIAL SAFETY DATA SHEET **GUN METAL**

TSCA Status : All	ssified as hazardous				
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		based on	componen	ts.	
	components of this CA Inventory.	s product a	re listed or	or exem	npt from th
S. EPA CERCLA Hazardous Substance	es (40 CFR 302)				
not applicable					
California Proposition : Not 65	applicable				
ADA Title III Section 202 Enternal II					
AKA THE III SECUON 502 EXTREMELY H	azardous Substance	e			
ARA Title III Section 302 Extremely H inless specific chemicals are identified u ARA Title III Section 313 Toxic Chemi inless specific chemicals are identified u	under this section, th	his product	_	-	
nless specific chemicals are identified u ARA Title III Section 313 Toxic Chemi nless specific chemicals are identified u Chemical Name ALUMINUM (FUME OR DUST)	under this section, th	his product	t is Not Ap No.	plicable	under this percent
nless specific chemicals are identified u ARA Title III Section 313 Toxic Chemi nless specific chemicals are identified u Chemical Name ALUMINUM (FUME OR DUST) anadian Regulations:	under this section, th icals: under this section, th	his product	t is Not Ap No.	plicable Weight	under this percent
nless specific chemicals are identified u ARA Title III Section 313 Toxic Chemi nless specific chemicals are identified u Chemical Name ALUMINUM (FUME OR DUST)	under this section, th icals: under this section, th	his product CAS-N 7429-90	t is Not Ap No. 0-5 Weigh	plicable Weight 10.00 -	under this percent
nless specific chemicals are identified u ARA Title III Section 313 Toxic Chemi nless specific chemicals are identified u Chemical Name ALUMINUM (FUME OR DUST) anadian Regulations: National Pollutant Release Invento	inder this section, th icals: inder this section, th ory (NPRI)	his product CAS-N 7429-90 -No. -90-5	t is Not Ap No. 0-5 Weigh percen	plicable Weight 10.00 -	under this percent · 30.00

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MATERIAL SAFETY DATA SHEET GUN METAL

Version Number 1.0 Revision Date 07/08/2009 Page 7 of 7 Print Date 1/8/2012

National Inventories:

:	Listed
:	Listed
:	Listed
:	Not determined
:	Listed
:	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.