### MATERIAL SAFETY DATA SHEET CHROMIUM FROST IM 968370 ABS 633

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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	:	CHROMIUM FROST IM 968370 ABS 633
Product code	:	CC10189191
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Formamide, N,N'-1,6-hexanediylbis[N-	124172-53-8	1 - 5
(2,2,6,6-tetramethyl-4-piperidinyl)-		
Aluminum	7429-90-5	1 - 5
Rutile (TiO2)	1317-80-2	1 - 5
Titanium dioxide	13463-67-7	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	: Resin particles, like other inert materials, can be mechanically irritating.
Ingestion Eyes	<ul><li>May be harmful if swallowed.</li><li>Resin particles, like other inert materials, are mechanically irritating to</li></ul>

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Skin	eyes. : 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.
	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	: not applicable
Lower explosion limit	: not applicable
Auto-ignition temperature Suitable extinguishing media	<ul><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.
	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.

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		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. EXI	POSUR	E 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:
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
Rutile (TiO2)	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
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



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	10 mg/m3	Time Weighted Aver (TWA):	rage as	s Ti	MX OEL
	20 mg/m3	Short Term Exposure (STEL):	Limit as	s Ti	MX OEL
	9. PHYSIC	CAL AND CHEMICA	L PROPERTIES		
Form	: solid : pelle		Evapouration rate Specific Gravity		ot applicable
Appearance Colour	: GRE		Bulk density		ot established
Odour			Vapour pressure		ot applicable
Melting point/range	•		Vapour density		t applicable
Boiling Point:			pH		t applicable
Water solubility	: insol	11	F		e appreade
	10. 5	STABILITY AND REA	ACTIVITY		
Stability	: T	he product is stable if st	ored and handled a	as prescribe	ed.
Hazardous Polymerization	: V	Vill not occur.			
Conditions to avoid		Leep away from oxidizin ecomposition, do not ov		flame. To	avoid thermal
Incompatible Materials	: Iı	ncompatible with strong	acids and oxidizin	ig agents.	
Hazardous decomposition	: C	Carbon dioxide (CO2), ca		· · · · · · · · · · · · · · · · · · ·	<b>f</b> : 4

#### **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
124172-53-8	Formamide, N,N'-1,6-	Irritant	Eyes.
	hexanediylbis[N-(2,2,6,6-		
	tetramethyl-4-piperidinyl)-		
7429-90-5	Aluminum	Irritant	Skin, Respiratory system.
		Systemic effects	Eyes, Skin, Respiratory
			system.
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
12001-26-2	Mica	Systemic effects	Respiratory system.

#### LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:



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CAS-No.	Chemical Name	Route	Value	Species
124172-53-8	Formamide, N,N'-1,6-	LC50	> 5.0 mg/l	rat
	hexanediylbis[N-(2,2,6,6-	Oral LD50	> 2,000 mg/kg	rat
	tetramethyl-4-piperidinyl)-			

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
1317-80-2	Rutile (TiO2)	no	2B	no
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	:	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
	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 material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.
	1	4. TRANSPORT INFORMATION
U.S. DOT Classification	:	Not regulated for transportation.

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ICAO/IATA IMO/IMDG (maritime)	:	Refer to specific					
IMO/IMDG (maritime)	:	Refer to specific					
· · ·	:		e regulati	on.			
		Refer to specific	c regulati	on.			
	15	. REGULATOR	Y INFO	RMATIO	N		
US Regulations:							
OSHA Status	:	Classified as ha	zardous b	based on co	mponent	s.	
TSCA Status	:	All components		broduct are	listed on	or exem	pt from the
US. EPA CERCLA Hazardous S	ubs	stances (40 CFR 2	302)				
not applicable							
California Proposition 65	:	WARNING! T California to car			a chemi	cal know	n to the State of
SARA Title III Section 302 Extre	eme	ely Hazardous Su	Ibstance				
Unless specific chemicals are ide	nti	fied under this se	ction, thi	s product is	s Not Ap	plicable	under this regulat
SARA Title III Section 313 Toxic	c C	hemicals:					
Unless specific chemicals are ide			ction thi	s product is	Not An	nlicable	under this regula
Chemical Name				CAS-No		Weight	percent
ALUMINUM (FUME OR DU OR DUST)	ST	)ALUMINUM (I	FUME	7429-90-:	5	1.00 - 5	5.00
Canadian Regulations:							
National Pollutant Release	. Ir	wantory (NDDI)					
Chemical Name	- 11.	Iventory (IVI KI)	CAS-N	lo.	Weight		NPRI ID#
Aluminum			7429-9	0-5	percent 1.00 - 5		
							<u>.                                    </u>
WHMIS Classification	:	D2A					

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CAS-No. 7429-90-5 12001-26-2		
DSL	:	All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is restricted by regulations.
National Inventories:		
Australia AICS	:	Not determined
China IECS	:	Not determined
Europe EINECS	:	Listed
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.