MATERIAL SAFETY DATA SHEET CHROMIUM FROST IM 968370 ABS 451

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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 451
Product code	:	CC10189192
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	5 - 10
(2,2,6,6-tetramethyl-4-piperidinyl)-		
Mica	12001-26-2	1 - 5
Rutile (TiO2)	1317-80-2	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Aluminum	7429-90-5	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	May be harmful if swallowed.Resin particles, like other inert materials, are mechanically irritating to

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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	not applicableCarbon dioxide blanket, Water spray, 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 (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	POSUI	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:
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):	age as	Ti	MX OEL
	20 mg/m3	Short Term Exposure I (STEL):	Limit as	Ti	MX OEL
	0 PHVSI	CAL AND CHEMICA	PROPERTIES		
	<i>7.1113</i>	CAL AND CHEWICA	LIKULKIIES		
Form	: solid		Evapouration rate	: N	lot applicable
Appearance	: pelle	ts	Specific Gravity	: N	lot determined
Colour	: GRE	Y	Bulk density	: N	lot established
Odour	: very	faint	Vapour pressure	: n	ot applicable
Melting point/range	: Not	determined	Vapour density	: n	ot applicable
Boiling Point:	: not a	pplicable	pН	: n	ot applicable
Water solubility	: insol	uble			
	10. 5	STABILITY AND REA	CTIVITY		
Stability	: T	he product is stable if st	ored and handled as	s prescrit	oed.
Hazardous Polymerization	: V	: Will not occur.			
Conditions to avoid		Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.			
	: Incompatible with strong acids and oxidizing agents.				
Incompatible Materials	: 11	icompatible with strong	uelus una oxiaizing		

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)-		
12001-26-2	Mica	Systemic effects	Respiratory system.
13463-67-7	Titanium dioxide	Systemic effects	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:



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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

polymer matrix. Bioaccumulation Potential : Chemicals are not readily available as they are bound within the				
Environmental Toxicity				
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the polymer matrix.			
Additional advice	: no data available			
	13. 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.			
	14. TRANSPORT INFORMATION			
U.S. DOT Classification	: Not regulated for transportation.			

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ICAO/IATA	: Refer to sp	pecific regulation.		
IMO/IMDG (maritime)	: Refer to sp	pecific regulation.		
	15. REGULA	TORY INFORMATI	ON	
US Regulations:				
OSHA Status	: Classified	as hazardous based on	components.	
TSCA Status	: All compo TSCA Inve	onents of this product a entory.	re listed on or exe	mpt from the
US. EPA CERCLA Hazardo	us Substances (40 G	CFR 302)		
not applicable				
California Propositio 65		G! This product contai to cause cancer.	ns a chemical kno	own to the State of
SARA Title III Section 302	Extremely Hazardo	us Substance		
Unless specific chemicals ar	e identified under tl	his section, this produc	t is Not Applicable	e under this regulat
SARA Title III Section 313	Toxic Chemicals:			
Unless specific chemicals are	e identified under tl	his section, this produc	t is Not Applicable	e under this regulat
Chemical Name		CAS-N	No. Weigh	nt percent
ALUMINUM (FUME OR OR DUST)	DUST)ALUMINU	JM (FUME 7429-9	0-5 5.00 -	- 10.00
Canadian Regulations:				
National Pollutant Re	lease Inventory (NI	PRI)		
Chemical Name		CAS-No.	Weight	NPRI ID#
Aluminum		7429-90-5	5.00 - 10.00	
WHMIS Classification	on : D2A			

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			16. OTHER INFORMATION	T	ſ
	Philippines PICCS	:	Not determined		
	Korea KECI	:	Not determined		
	Japan ENCS	:	Not determined		
	Europe EINECS	:	Listed		
	China IECS	:	Not determined		
	Australia AICS	:	Not determined		
National Inventories:					
	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.		
	CAS-No.				

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.