MATERIAL SAFETY DATA SHEET RADPPH 118544

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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	:	RADPPH 118544
Product code	:	CC10118544
Chemical Name	:	Mixture
CAS-No.	:	Mixture
Product Use	:	Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight percent
Lauric acid diethanolamide condensate	120-40-1	1 - 5
1,6-Hexanediamine, N,N'-bis(2,2,6,6- tetramethyl-4-piperidinyl)-,polymer with	70624-18-9	5 - 10
2,4,6-trichloro-1,3,5-triazine, reaction products		
Amines, bis(hydrogenated tallow alkyl), oxidized	143925-92-2	5 - 10
Silica, amorphous, precipitated and gel	112926-00-8	1 - 5
Zinc stearate	557-05-1	1 - 5
Rutile, antimony chromium buff	68186-90-3	5 - 10
Titanium dioxide	13463-67-7	10 - 30

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

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Ingestion Eyes	 irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eyes.
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.
	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. FIRE-FIGHTING MEASURES
Flash point	: not applicable
Flammable Limits	
Upper explosion limit	: not applicable
Lower explosion limit	: not applicable
Autoignition 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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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.
Storage	:	Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep in a dry, cool place.
8. EX	POSU	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:
Rutile, antimony chromium buff	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	ACGIH
	0.5 mg/m3	Recommended exposure limit (REL):	as Sb	NIOSH
	0.5 mg/m3	PEL:	as Sb	OSHA Z1
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	OSHA Z1A
	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
Silica, amorphous, precipitated and gel	6 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	0.8 mg/m3	Time Weighted Average (TWA):		Z3
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
Zinc stearate	5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	10 mg/m3	Recommended exposure limit (REL):	Total	NIOSH
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):	Total dust.	OSHA Z1A
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	10 mg/m3	Time Weighted Average (TWA):		ACGIH

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance : solid : pellets Evaporation rate Specific Gravity

Not applicableNot determined

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C M B	Colour Odour Melting point/range Goiling Point: Water solubility	::	TAN very faint Not determined not applicable insoluble	Bulk density Vapour pressure Vapour density pH	•	Not established not applicable not applicable not applicable
			10. STABILITY AND RE	ACTIVITY		
S	tability		: Stable			
Η	Iazardous Polymerization		: Will not occur.			
С	Conditions to avoid		: Keep away from oxidizide decomposition, do not or	001	ne.	To avoid thermal

Incompatible Materials: Incompatible with strong acids and oxidizing agents.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
120-40-1	Lauric acid	Irritant	Eyes, Skin.
	diethanolamide condensate		
70624-18-9	1,6-Hexanediamine, N,N'-	Irritant	Eyes, Skin, Respiratory
	bis(2,2,6,6-tetramethyl-4-		system.
	piperidinyl)-,polymer with		
	2,4,6-trichloro-1,3,5-		
	triazine, reaction products		
143925-92-2	Amines, bis(hydrogenated	sensitizer	Skin.
	tallow alkyl), oxidized		
112926-00-8	Silica, amorphous,	Irritant	Respiratory system, Eyes.
	precipitated and gel		
557-05-1	Zinc stearate	Systemic effects	Eyes, Skin, Respiratory
			system.
68186-90-3	Rutile, antimony	Irritant	Eyes, Skin, Respiratory
	chromium buff		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

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120-40-1	Lauric acid diethanolamide condensate	Oral LD50	2,700 mg/kg	rat
70624-18-9	1,6-Hexanediamine, N,N'- bis(2,2,6,6-tetramethyl-4- piperidinyl)-,polymer with 2,4,6-trichloro-1,3,5- triazine, reaction products	Oral LD50 Dermal LD50	> 2,000 mg/kg > 3,000 mg/kg	rat rat
557-05-1	Zinc stearate	Oral LD50	> 10 gm/kg	rat

Carcinogenicity

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	: 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	: 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.

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	14	4. TRANSPOR	T INFOR	RMATIO	N		
U.S. DOT Classification	:	Not regulated for	or transpo	rtation.			
ICAO/IATA	: Refer to specific regulation.						
IMO / IMDG (maritime)	:	Refer to specifi	c regulati	on.			
	15.	. REGULATOR	RY INFO	RMATIC	DN		
US Regulations:							
OSHA Status	:	Classified as ha	zardous b	based on c	omponent	s.	
TSCA Status	: All components of this product are listed on or exempt from the TSCA Inventory.						
US. EPA CERCLA Hazardo	us Subs	tances (40 CFR	302)				
not applicable							
California Proposition 65	n :	Not applicable					
SARA Title III Section 302 I	Extreme	ely Hazardous Su	ubstance				
Unless specific chemicals are	e identif	fied under this se	ection, this	s product	is Not Ap	plicable	under this regul
SARA Title III Section 313 7	Fovia C	hemicals					
			oction this	nroduct	is Not Ap	alicabla	under this regul
Unless specific chemicals are identified under this section, thi Chemical Name			CAS-No.		Weight percent		
CHROMIUM III COMPOUNDSCHROMIUM III COMPOUNDSANTIMONY COMPOUNDS			68186-90-3		5.00 - 10.00		
ZINC COMPOUNDS				557-05-1		1.00 - 5.00	
ZINC COMPOUNDS							
ZINC COMPOUNDS							
Canadian Regulations:	lease In	ventory (NPRI)					
	lease In	ventory (NPRI)	CAS-N	lo.	Weight		NPRI ID#
Canadian Regulations: National Pollutant Rel	lease In	ventory (NPRI)	CAS-N 1344-2		Weight percent 0.10 - 1		NPRI ID#

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Zinc stearate	557-05-1 1.00 - 5	5.00				
WHMIS Classification WHMIS Ingredient Discl CAS-No. 68186-90-3 557-05-1						
DSL	: All components of this product are on the Ca Substances List (DSL) or are exempt.	anadian Domestic				
National Inventories:						
Australia AICS	: Listed					
China IECS	: Listed					
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.