

MATERIAL SAFETY DATA SHEET

## **BLUE SLATE 532**

Version Number 1.0 Revision Date 01/08/2003

Product Use

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## 1. PRODUCT AND COMPANY IDENTIFICATION

## POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

NON-EMERGENCY TELEPHONE	:	Product Stewardship (770) 271-5902
Emergency telephone number	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).
Product name	:	BLUE SLATE 532
Product code	:	CC10028747
Chemical Name	:	Mixture
CAS-No.	:	Mixture

: Industrial Applications

## 2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Components	CAS-No.	Weight %
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Nickel, (1-butanamine)[[2,2'-thiobis[4-(1,1,3,3-tetra methylbutyl)phenolato]](2-)-O,O',S]-	14516-71-3	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 Ingestion Eyes	<ul> <li>Resin particles, like other inert materials, can be mechanically irritating.</li> <li>May be harmful if swallowed.</li> <li>Resin particles, like other inert materials, are mechanically irritating to avos</li> </ul>
Skin	eyes. : Experience shows no unusual dermatitis hazard from routine handling.



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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 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 seel medical attention.
	5. FIRE-FIGHTING MEASURES
Flash point	: Not applicable
Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media	<ul> <li>Not applicable</li> <li>Not applicable</li> <li>Not relevant</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	: None
	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.
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 12



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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. EXF	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.



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Components	Value	Exposure time	Exposure type	List:
Carbon black	3.5 mg/m3	Time Weighted Average (TWA):	Total dust. as carbon black	ACGIH
Carbon black	3.5 mg/m3	PEL:	Total dust. as carbon black	OSHA Z1
Iron oxide	5 mg/m3	Time Weighted Average (TWA):	Dust and fume. as Fe	ACGIH
Nickel, (1-butanamine)[[2,2'-t hiobis[4-(1,1,3,3-tetra methylbutyl)phenolato ]](2-)-O,O',S]-	1 mg/m3	PEL:	as Ni	OSHA Z1
Nickel, (1-butanamine)[[2,2'-t hiobis[4-(1,1,3,3-tetra methylbutyl)phenolato ]](2-)-O,O',S]-	0.2 mg/m3	Time Weighted Average (TWA):	Inhalable fraction. as Ni	ACGIH
Silica, amorphous	20 mppcf	PEL:	Total dust.	OSHA
Silica, amorphous	20 mppcf	PEL:	Total dust.	Z3
Titanium dioxide	10 mg/m3	Time Weighted Average (TWA):	Dust.	ACGIH
Titanium dioxide	15 mg/m3	PEL:	Total dust.	OSHA Z1

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor Melting point/range Boiling Point: Water solubility

# Solid Pellets BLUE Very faint Not determined Not applicable Insoluble

Evaporation rate Specific Gravity Bulk density Vapor pressure Vapor density pH

- Not applicable.Not determined
- : Not established
- : Not applicable
- : Not applicable
- : Not applicable

#### **10. STABILITY AND REACTIVITY** Stability : Stable. Hazardous Polymerization Will not occur. : Keep away from oxidizing agents and open flame. To avoid thermal Conditions to avoid : decomposition, do not overheat. Incompatible Materials Incompatible with strong acids and oxidizing agents. : Hazardous decomposition Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen : (NOx), other hazardous materials, and smoke are all possible. products

11. TOXICOLOGICAL INFORMATION



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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
1333-86-4	Carbon black	Systemic effects	Eyes, Respiratory system.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
7631-86-9	Silica, amorphous	Irritant	Eyes, Respiratory system.
14516-71-3	Nickel, (1-butanamine)[[2,2'-thiob is[4-(1,1,3,3-tetramethylbu tyl)phenolato]](2-)-O,O',S] -	sensitizer	Skin.
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
1333-86-4	Carbon black	Oral LD50	>15,400 mg/kg	rat
		Dermal LD50	> 3 gm/kg	rabbit

### Carcinogenicity:

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
1333-86-4	Carbon black	no	2B	no
14516-71-3	Nickel, (1-butanamine)[[2,2'-thiobis[4 -(1,1,3,3-tetramethylbutyl)phe nolato]](2-)-O,O',S]-	no	1	2

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.

## Additional Health Hazard Information:



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Carbon black 1333-86-4 Carcinogenicity: Many inhalation toxicologists believe that the tumor response observed in the referenced rat studies is species specific and does not correlate to human exposure. However, the IARC evaluation in Monograph Volume 65, issued in April 1996 concluded that, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black". Based on this evaluation, along with their evaluation of inadequate evidence of carcinogenicity in humans, IARC's overall evaluation is that "Carbon Black is possibly carcinogenic to humans (Group 2B). Carbon Black has not been listed as a carcinogen by the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA). The National Institute of Occupational Safety and Health (NIOSH) criteria document on carbon black recommends that only carbon black with PAH (polynuclear aromatic hydrocarbon) levels greater than 0.1% be considered suspect carcinogens.

Additional Health Hazard Information:

Nickel, (1-butanamine)[[2,2'-thiobis[4-(1,1,3,3-tetramethylbutyl)phenolato]](2-)-O,O',S]- 14516-71-3 Skin sensitizer ''nickel itch'', with pulmonary, brain, liver, kidney and muscle effects.

Persistence and degradability	: Not readily biodegradable.
Environmental Toxicity	: Chemicals are not readily available as they are bound within the matrix of the polymer.
Bioaccumulation Potential	: Chemicals are not readily available as they are bound within the matrix of the polymer.
Additional advice	: No data available.
	13. DISPOSAL CONSIDERATIONS
Product	: Like most thermoplastics 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 materia 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	: Refer to specific regulation.
ICAO/IATA	: Refer to specific regulation.
IMO / IMDG	: Refer to specific regulation.
	15. REGULATORY INFORMATION

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US Regulations:	
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 S	ubstances (40 CFR 302)
Not applicable	
California Proposition 65	: WARNING! This product contains a chemical known to the State of California to cause cancer.
SARA Title III Section 313 Toxi Chemical Name NICKEL COMPO	CAS-No. Weight %
Canadian Regulations:	
WHMIS Classification	: D2A
WHMIS Ingredient Disclo	osure List
CAS-No. 1333-86-4 1309-37-1 14516-71-3 7631-86-9	
DSL	: All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.
National Inventories:	
Australia AICS	: Listed.
China IECS	: Not determined.
Europe EINECS	: Not determined.
Japan ENCS	: Listed.

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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.