

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****USP 4135 Mil Green Additive**Version Number 1.0
Revision Date 07/10/2012Page 1 of 8
Print Date 8/27/2012**1. PRODUCT AND COMPANY IDENTIFICATION****POLYONE CORPORATION**
8155 Cobb Center Drive, Kennesaw, GA 30152Telephone : 1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone : **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).**Product name : USP 4135 Mil Green Additive
Product code : FO20029852
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications**2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS**

Components	CAS-No.	Weight percent
Carbon black	1333-86-4	1 - 5
Iron oxide	1309-37-1	1 - 5
Silica, amorphous	7631-86-9	1 - 5
Titanium dioxide	13463-67-7	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. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

POTENTIAL HEALTH EFFECTS**Routes of Exposure:** : Inhalation, Skin contact, Ingestion**Acute exposure**Inhalation : Irritating to respiratory system.
Ingestion : No known effects.
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.

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Medical Conditions : None known.
Aggravated by Exposure:

4. FIRST AID MEASURES

Inhalation : Move to fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion : Not an anticipated hazard.

Eyes : Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.

Skin : Wash off with soap and plenty of water.

5. FIRE-FIGHTING MEASURES

Flash point : not applicable

Flammable Limits
Upper explosion limit : not applicable
Lower explosion limit : not applicable
Autoignition temperature : no data available
Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide..

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 (NO_x), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid breathing dust. Avoid dust formation. Ensure adequate ventilation. 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. Do not create a powder cloud by using a brush or compressed air. Shovel into suitable container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

Handling : Provide for appropriate exhaust ventilation and dust collection at

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machinery. Avoid formation of dust and aerosols.

Storage : Store in a cool dry place. Keep away from open flames, hot surfaces and sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Employees using respirators must be properly trained. Employers must follow applicable regulations such as OSHA 29 CFR 1910.134.

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 industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

Engineering measures : Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.

Exposure limit(s)

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Components	Value	Exposure time	Exposure type	List:
Carbon black	3.5 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.1 mg/m3	Recommended exposure limit (REL):		NIOSH
	3.5 mg/m3	PEL:		OSHA Z1
	3.5 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	3.5 mg/m3	Time Weighted Average (TWA):		MX OEL
	7 mg/m3	Short Term Exposure Limit (STEL):		MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
Iron oxide	10 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	as Fe	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	as Fe	MX OEL
	5 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
Silica, amorphous	6 mg/m3	Recommended exposure limit (REL):		NIOSH
	0.8 mg/m3	Time Weighted Average (TWA):		Z3
	10 mg/m3	Time Weighted Average (TWA):	Inhalable particulate.	MX OEL
	3 mg/m3	Time Weighted Average (TWA):	Respirable dust.	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
	10 mg/m3	Time Weighted Average (TWA):	as Ti	MX OEL
	20 mg/m3	Short Term Exposure Limit (STEL):	as Ti	MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

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

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10. STABILITY AND REACTIVITY

- Stability : Stable
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : Heat, flames and sparks.
- Incompatible Materials : Strong acids and oxidizing agents
- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), hydrogen chloride (HCl), 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
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.
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 Dermal LD50	> 15,400 mg/kg > 3 gm/kg	rat 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
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.

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2 - The component is reasonably anticipated to be a human carcinogen.

Additional Health Hazard Information:

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). The IARC 2B listing only pertains to airborne, unbound carbon black particles of respirable size. 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.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Pigments are practically not biodegradable.
Environmental Toxicity : no data available
Bioaccumulation Potential : no data available
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 : Refer to specific regulation.
ICAO/IATA : Refer to specific regulation.
IMO/IMDG (maritime) : Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

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TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Phthalocyanine green	1328-53-6	0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1333-86-4
1309-37-1
1328-53-6
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

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China IECS : Listed
Europe EINECS : Listed
Japan ENCS : Not determined
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.