



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

**00000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 1 of 9  
Print Date 4/4/2013

### 1. PRODUCT AND COMPANY IDENTIFICATION

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

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE  
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure  
number or accident).  
Product name : 00000451635  
Product code : EM10028740  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Carbon	7440-44-0	1 - 5
Graphite	7782-42-5	1 - 5
Zinc oxide	1314-13-2	1 - 5
Manganese oxide (MnO)	1344-43-0	1 - 5
Iron oxide	1309-37-1	10 - 30
Nickel	7440-02-0	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 : Particulates, like other inert materials can be mechanically irritating.  
Ingestion : May be harmful if swallowed.  
Eyes : Particulates, like other inert materials can be mechanically irritating.  
Skin : Experience shows no unusual dermatitis hazard from routine handling.

**POLYONE CORPORATION****MATERIAL SAFETY DATA SHEET****00000451635**Version Number 1.0  
Revision Date 04/04/2013Page 2 of 9  
Print Date 4/4/2013**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 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** : not applicable
- Suitable extinguishing media** : Carbon 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 (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), 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.
- Methods for cleaning up** : Clean up promptly by sweeping or vacuum. Package all material in plastic, cardboard or metal containers for disposal.

**7. HANDLING AND STORAGE**

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**00000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 3 of 9  
Print Date 4/4/2013

- 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. EXPOSURE 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)

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**000000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 4 of 9  
Print Date 4/4/2013

Components	Value	Exposure time	Exposure type	List:
Graphite	2 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	2.5 mg/m3	Recommended exposure limit (REL):	Respirable.	NIOSH
	2.5 mg/m3	Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A
	2 mg/m3	Time Weighted Average (TWA):		MX OEL
	10 mg/m3	Time Weighted Average (TWA):		MX OEL
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
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
Nickel	1.5 mg/m3	Time Weighted Average (TWA):	Inhalable fraction.	ACGIH
	1 mg/m3	PEL:	as Ni	OSHA Z1
	1 mg/m3	Time Weighted Average (TWA):		MX OEL
Zinc oxide	2 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	10 mg/m3	Short Term Exposure Limit (STEL):	Respirable fraction.	ACGIH
	5 mg/m3	Recommended exposure limit (REL):	Fume.	NIOSH
	5 mg/m3	Recommended exposure limit (REL):	Dust.	NIOSH
	15 mg/m3	Ceiling Limit Value and Time Period (if specified):	Dust.	NIOSH
	10 mg/m3	Short Term Exposure Limit (STEL):	Fume.	NIOSH
	5 mg/m3	PEL:	Fume.	OSHA Z1
	5 mg/m3	PEL:	Respirable fraction.	OSHA Z1
	15 mg/m3	PEL:	Total dust.	OSHA Z1
	5 mg/m3	Time Weighted Average (TWA):	Fume.	OSHA Z1A
	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	Short Term Exposure Limit (STEL):	Fume.	OSHA Z1A	

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**000000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 5 of 9  
Print Date 4/4/2013

	5 mg/m3	Time Weighted Average (TWA):	Fume.	MX OEL
	10 mg/m3	Time Weighted Average (TWA):	Dust.	MX OEL
	10 mg/m3	Short Term Exposure Limit (STEL):	Fume.	MX OEL
Manganese oxide (MnO)	1 mg/m3	Recommended exposure limit (REL):	Fume. as Mn	NIOSH
	3 mg/m3	Short Term Exposure Limit (STEL):	Fume. as Mn	NIOSH
	5 mg/m3	Ceiling Limit Value:	as Mn	OSHA Z1
	5 mg/m3	Ceiling Limit Value:	as Mn	OSHA Z1A
	0.2 mg/m3	Time Weighted Average (TWA):	as Mn	ACGIH
	0.2 mg/m3	Time Weighted Average (TWA):	as Mn	MX OEL

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	: solid	Evaporation rate	: Not applicable
Appearance	: pellets, Slabs	Specific Gravity	: Not determined
Colour	: NO PIGMENT	Bulk density	: Not established
Odour	: very faint	Vapour pressure	: not applicable
Melting point/range	: Not determined	Vapour density	: not applicable
Boiling Point:	: not applicable	pH	: not applicable
Water solubility	: insoluble		

**10. STABILITY AND REACTIVITY**

Stability	: The product is stable if stored and handled as prescribed.
Hazardous Polymerization	: Will not occur.
Conditions to avoid	: To avoid thermal decomposition, do not overheat.
Incompatible Materials	: Strong acids, oxidizing and reducing agents
Hazardous decomposition products	: Carbon dioxide (CO <sub>2</sub> ), carbon monoxide (CO), oxides of nitrogen (NO <sub>x</sub> ), 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
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**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**000000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 6 of 9  
Print Date 4/4/2013

7440-44-0	Carbon	Systemic effects	Respiratory system, heart or circulatory system.
7782-42-5	Graphite	Systemic effects	Respiratory system, heart or circulatory system.
1314-13-2	Zinc oxide	Systemic effects	Respiratory system.
1344-43-0	Manganese oxide (MnO)	Irritant	Eyes, Skin.
1309-37-1	Iron oxide	Systemic effects	Respiratory system.
7440-02-0	Nickel	Systemic effects	Skin, 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
7440-44-0	Carbon	Oral LD50	10,000 mg/kg	rat
1314-13-2	Zinc oxide	LC50	2500 mg/m3	mouse
		LC50		mouse
		Oral LD50	7,950 mg/kg	mouse

**Carcinogenicity**

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
7440-02-0	Nickel	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.

**Additional Health Hazard Information:**

**Nickel 7440-02-0 Skin sensitizer "nickel itch", with pulmonary, brain, liver, kidney and muscle effects.**

**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 : not applicable



**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**00000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 7 of 9  
Print Date 4/4/2013

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

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for component	RQ for Mixture/Product
Nickel	7440-02-0	100 lbs	556 LB

- California Proposition 65 : WARNING! This product contains a chemical known to the State of California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

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

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**000000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 8 of 9  
Print Date 4/4/2013

SARA Title III Section 313 Toxic Chemicals:

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

Chemical Name	CAS-No.	Weight percent
NICKEL	7440-02-0	10.00 - 30.00
ZINC COMPOUNDS	1314-13-2	1.00 - 5.00
MANGANESE COMPOUNDS MANGANESE COMPOUNDS	1344-43-0	1.00 - 5.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Nickel	7440-02-0	10.00 - 30.00	
Zinc oxide	1314-13-2	1.00 - 5.00	
Manganese oxide (MnO)	1344-43-0	1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1309-37-1
7440-02-0
1314-13-2
1344-43-0

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Not determined

China IECS : Listed

Europe EINECS : Listed

Japan ENCS : Not determined

Korea KECI : Listed

Philippines PICCS : Not determined

**16. OTHER INFORMATION**





**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**00000451635**

Version Number 1.0  
Revision Date 04/04/2013

Page 9 of 9  
Print Date 4/4/2013

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