



# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

### GREY 282N CONC(25-1) V

Version Number 1.1  
Revision Date 06/01/2007

Page 1 of 8  
Print Date 11/29/2011

#### 1. PRODUCT AND COMPANY IDENTIFICATION

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

Telephone : Product Stewardship (440) 930-1395  
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Product name : GREY 282N CONC(25-1) V  
Product code : EM10000054  
Chemical Name : Mixture  
CAS-No. : Mixture  
Product Use : Industrial Applications

#### 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	68187-11-1	1 - 5
Cobalt chromite green spinel (C.I. Pigment Green 26)	68187-49-5	1 - 5
Chromium (III) oxide	1308-38-9	1 - 5
Cobalt(II) oxide	1307-96-6	1 - 5
Titanium dioxide	13463-67-7	1 - 5
Spinels, chromium (III) copper black	68186-91-4	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**

**GREY 282N CONC(25-1) V**

Version Number 1.1  
Revision Date 06/01/2007

Page 2 of 8  
Print Date 11/29/2011

**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. FIRE-FIGHTING MEASURES**

- Flash point** : Not applicable
- Flammable Limits**
- Upper explosion limit : Not applicable
  - Lower explosion limit : Not applicable
- Autoignition 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. Refer to Section 13 of this MSDS for proper disposal methods.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GREY 282N CONC(25-1) V**

Version Number 1.1  
Revision Date 06/01/2007

Page 3 of 8  
Print Date 11/29/2011

**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. 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**

**GREY 282N CONC(25-1) V**

Version Number 1.1

Page 4 of 8

Revision Date 06/01/2007

Print Date 11/29/2011

Components	Value	Exposure time	Exposure type	List:
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	0.02 mg/m3	Time Weighted Average (TWA):	as Co	ACGIH
	0.5 mg/m3	Time Weighted Average (TWA):		MX OEL
Cobalt chromite green spinel (C.I. Pigment Green 26)	0.02 mg/m3	Time Weighted Average (TWA):	as Co	ACGIH
	0.5 mg/m3	Time Weighted Average (TWA):		MX OEL
Chromium (III) oxide	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
Cobalt(II) oxide	0.02 mg/m3	Time Weighted Average (TWA):	as Co	ACGIH
Spinels, chromium (III) copper black	0.5 mg/m3	Time Weighted Average (TWA):	as Cr	ACGIH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
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):	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	: pellets, Slabs	Specific Gravity	: Not determined
Color	: GREY	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	: Stable.
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.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GREY 282N CONC(25-1) V**

Version Number 1.1  
Revision Date 06/01/2007

Page 5 of 8  
Print Date 11/29/2011

**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
68187-11-1	Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	Irritant	Eyes, Skin.
1308-38-9	Chromium (III) oxide	Irritant	Eyes, Skin.
		sensitizer	Skin.
1307-96-6	Cobalt(II) oxide	Toxic	Refer to LC50 / LD50 Data on MSDS..
13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
68186-91-4	Spinels, chromium (III) copper black	Irritant	Eyes, 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
1307-96-6	Cobalt(II) oxide	Oral LD50Oral LD50	202 mg/kg 202 mg/kg	rat/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
68187-11-1	Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	no	2B	no
68187-49-5	Cobalt chromite green spinel (C.I. Pigment Green 26)	no	2B	no
1307-96-6	Cobalt(II) oxide	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.

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GREY 282N CONC(25-1) V**

Version Number 1.1  
Revision Date 06/01/2007

Page 6 of 8  
Print Date 11/29/2011

**Additional Health Hazard Information:**

**Aluminum chromium cobalt oxide (C.I. Pigment Blue 36) 68187-11-1** The bi- and trivalent forms of chrome have a low order of acute toxicity, but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

**Additional Health Hazard Information:**

**Chromium (III) oxide 1308-38-9** The bi- and trivalent forms of chrome have a low order of acute toxicity, but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

**Additional Health Hazard Information:**

**Spinels, chromium (III) copper black 68186-91-4** The bi- and trivalent forms of chrome have a low order of acute toxicity, but may cause skin sensitization and irritation to the eyes. No effects have been reported for chromium (III) oxide. Chromium (III) compounds are not considered carcinogenic in animals or humans.

**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

**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 (air) : Refer to specific regulation.
- IMO / IMDG (maritime) : Refer to specific regulation.

**POLYONE CORPORATION****MATERIAL SAFETY DATA SHEET****GREY 282N CONC(25-1) V**Version Number 1.1  
Revision Date 06/01/2007Page 7 of 8  
Print Date 11/29/2011**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)

Not applicable

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

## 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 %
COBALT COMPOUNDS	68187-11-1	1.00 - 5.00
COBALT COMPOUNDS	68187-49-5	1.00 - 5.00
CHROMIUM III COMPOUNDS	1308-38-9	1.00 - 5.00
COBALT COMPOUNDS	1307-96-6	1.00 - 5.00
CHROMIUM III COMPOUNDS COPPER COMPOUNDS (WITH EXCEPTIONS)	68186-91-4	10.00 - 30.00

## Canadian Regulations:

## National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Aluminum chromium cobalt oxide (C.I. Pigment Blue 36)	68187-11-1	1.00 - 5.00	70
Cobalt chromite green spinel (C.I. Pigment Green 26)	68187-49-5	1.00 - 5.00	70
Chromium (III) oxide	1308-38-9	1.00 - 5.00	69
Cobalt(II) oxide	1307-96-6	1.00 - 5.00	70
Spinels, chromium (III) copper black	68186-91-4	10.00 - 30.00	69
		10.00 - 30.00	71

**POLYONE CORPORATION**

**MATERIAL SAFETY DATA SHEET**

**GREY 282N CONC(25-1) V**

Version Number 1.1

Revision Date 06/01/2007

Page 8 of 8

Print Date 11/29/2011

WHMIS Classification : D1B

WHMIS Ingredient Disclosure List

CAS-No.
1308-38-9
1307-96-6
68186-91-4

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

National Inventories:

- Australia AICS : Listed
- 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.