



POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGG0046 Emco Spring Green St.

Version Number 1.4
Revision Date 05/19/2009

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1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION
8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone : Product Stewardship (770) 590-3500 x.3563
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Product name : DGG0046 Emco Spring Green St.
Product code : FO20008278
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

Components	CAS-No.	Weight %
Bisphenol A - Epichlorohydrin polymer	25068-38-6	1 - 5
Stoddard solvent	8052-41-3	0.1 - 1
Naphthalene	91-20-3	0.1 - 1
Antimony trioxide	1309-64-4	1 - 5
Chromium (III) oxide	1308-38-9	1 - 5
Rutile, antimony chromium buff	68186-90-3	1 - 5
Silica, amorphous, diatomaceous earth	68855-54-9	1 - 5
Silica, cristobalite	14464-46-1	1 - 5
Bis (2-ethylhexyl) adipate	103-23-1	5 - 10
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. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Inhalation of airborne droplets may cause irritation of the respiratory tract.

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Ingestion : May be harmful if swallowed.
Eyes : May cause eye and skin irritation.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions : None known.
Aggravated by Exposure:

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 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 : No data available

Flammable Limits
Upper explosion limit : No data available
Lower explosion limit : No data available

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 : May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions. 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 : Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil. Should not be released into the environment.

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Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Package all material in appropriate container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

Handling : Heat only in areas with appropriate exhaust ventilation. Processing fume condensates may contain combustible or toxic residue. Periodically clean hoods, ducts, and other surfaces to minimize accumulation of these materials.

Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Store in a cool dry 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)

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Components	Value	Exposure time	Exposure type	List:
Antimony trioxide	0.5 mg/m3	Time Weighted Average (TWA):	as Sb	MX OEL
	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
Chromium (III) oxide	0.5 mg/m3	Recommended exposure limit (REL):	as Cr	NIOSH
	0.5 mg/m3	PEL:	as Cr	OSHA Z1
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, diatomaceous earth	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
Silica, cristobalite	0.025 mg/m3	Time Weighted Average (TWA):	Respirable fraction.	ACGIH
	0.05 mg/m3	Time Weighted Average (TWA):	Respirable dust.	OSHA Z1A
	0.05 mg/m3	Time Weighted Average (TWA):	Respirable.	Z3
	0.15 mg/m3	Time Weighted Average (TWA):	Total dust.	Z3
	0.05 mg/m3	Time Weighted Average (TWA):		MX OEL
Stoddard solvent	100 ppm	Time Weighted Average (TWA):		ACGIH
	350 mg/m3	Recommended exposure limit (REL):		NIOSH
	1,800 mg/m3	Ceiling Limit Value and Time Period (if specified):		NIOSH

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	500 ppm 2,900 mg/m3	PEL:		OSHA Z1
	100 ppm 525 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	100 ppm 523 mg/m3	Time Weighted Average (TWA):		MX OEL
	200 ppm 1,050 mg/m3	Short Term Exposure Limit (STEL):		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
Naphthalene	10 ppm	Time Weighted Average (TWA):		ACGIH
	15 ppm	Short Term Exposure Limit (STEL):		ACGIH
	10 ppm 50 mg/m3	Recommended exposure limit (REL):		NIOSH
	15 ppm 75 mg/m3	Short Term Exposure Limit (STEL):		NIOSH
	10 ppm 50 mg/m3	PEL:		OSHA Z1
	10 ppm 50 mg/m3	Time Weighted Average (TWA):		OSHA Z1A
	15 ppm 75 mg/m3	Short Term Exposure Limit (STEL):		OSHA Z1A
	10 ppm 50 mg/m3	Time Weighted Average (TWA):		MX OEL
	15 ppm 75 mg/m3	Short Term Exposure Limit (STEL):		MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid	Evaporation rate	: Not established
Appearance	: Viscous, liquid	Specific Gravity	: Not determined
Color	: GREEN	Bulk density	: Not applicable
Odour	: Very faint	Vapour pressure	: Not determined
Melting point/range	: Not applicable	Vapour density	: Not determined
Boiling Point:	: Not applicable	pH	: Not applicable
Water solubility	: Immiscible		

10. STABILITY AND REACTIVITY

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- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : Keep away from oxidizing agents and open flame. To avoid thermal decomposition, do not overheat.
- Incompatible Materials : Incompatible with strong acids and oxidizing agents., Avoid contact with acetal homopolymers and acetal copolymers during processing.
- 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. Prolonged heating may result in product degradation. As a general rule of thumb, degradation begins to occur after one hour at 177 °C (350 °F), after 10 minutes at 204 °C (400 °F), and within 5 minutes at 232 °C (450 °F).

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
25068-38-6	Bisphenol A - Epichlorohydrin polymer	Irritant	Skin.
		sensitizer	Skin.
8052-41-3	Stoddard solvent	Systemic effects	Kidney, Liver, central nervous system (CNS).
		Irritant	Eyes, Skin, Respiratory system.
91-20-3	Naphthalene	Irritant	Eyes.
		Systemic effects	Eyes, Respiratory system, central nervous system (CNS).
		Toxic	Refer to LC50 / LD50 Data on MSDS..
1309-64-4	Antimony trioxide	Systemic effects	Eyes, Respiratory system.
		sensitizer	Skin.
1308-38-9	Chromium (III) oxide	Irritant	Eyes, Skin.
		sensitizer	Skin.
68186-90-3	Rutile, antimony chromium buff	Irritant	Eyes, Skin, Respiratory system.
68855-54-9	Silica, amorphous, diatomaceous earth	Irritant	Eyes, Skin, Respiratory system.
14464-46-1	Silica, cristobalite	Systemic effects	Respiratory system.
		Irritant	Eyes, Skin, Respiratory system.

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13463-67-7	Titanium dioxide	Systemic effects	Respiratory system.
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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
25068-38-6	Bisphenol A - Epichlorohydrin polymer	Oral LD50	11,400 mg/kg	rat
		Dermal LD50	> 6,000 mg/kg	rabbit
8052-41-3	Stoddard solvent	Oral LD50	> 5,000 mg/kg	rat
		Dermal LD50	> 3,000 mg/kg	rabbit
91-20-3	Naphthalene	LC50	> 340 mg/m ³	rat
		Oral LD50	490 mg/kg	rat
		Dermal LD50	> 20 gm/kg	rabbit
1309-64-4	Antimony trioxide	Oral LD50	> 34,600 mg/kg	rat
103-23-1	Bis (2-ethylhexyl) adipate	Oral	9,100	rat mouserat
		LD50Oral	mg/kg15,000	
		LD50Oral	mg/kg5,600	
		LD50	mg/kg	

Carcinogenicity

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

CAS-No.	Chemical Name	OSHA	IARC	NTP
91-20-3	Naphthalene	no	2B	no
1309-64-4	Antimony trioxide	no	2B	no
14464-46-1	Silica, cristobalite	no	1	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.

Additional Health Hazard Information:

Antimony trioxide 1309-64-4 Can cause eye irritation. Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash).

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:

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Silica, cristobalite 14464-46-1 This material in its free releasable form may cause respiratory tract irritation. Long-term exposure may cause coughing, chest pain, diminished chest expansion and possibly silicosis, which is a scarring of the lungs.

12. ECOLOGICAL INFORMATION

- Persistence and degradability : Not readily biodegradable.
- Environmental Toxicity : Environmental toxicity has not been established for this mixture as a whole.
- 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 (air) : 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
Chromium (III) oxide	1308-38-9	010 lbs	1,018 LB

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

Chemical Name	CAS-No.	Weight %
ANTIMONY COMPOUNDS	1309-64-4	1.00 - 5.00
CHROMIUM III COMPOUNDSCHROMIUM COMPOUNDS	1308-38-9	0.10 - 1.00
CHROMIUM III COMPOUNDSCHROMIUM III COMPOUNDSANTIMONY COMPOUNDS	68186-90-3	1.00 - 5.00
NAPHTHALENE	91-20-3	0.10 - 1.00

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight %	NPRI ID#
Antimony trioxide	1309-64-4	1.00 - 5.00	
Bis (2-ethylhexyl) adipate	103-23-1	5.00 - 10.00	
Chromium (III) oxide	1308-38-9	0.10 - 1.00	
Rutile, antimony chromium buff	68186-90-3	1.00 - 5.00	
Zinc	7440-66-6	0.10 - 1.00	
1,2,4-Trimethylbenzene	95-63-6	0.10 - 1.00	
Naphthalene	91-20-3	0.10 - 1.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No.
1309-64-4
103-23-1
1308-38-9
68186-90-3

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68855-54-9
14464-46-1
95-63-6

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 : Not determined

Europe EINECS : Not determined

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.