

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****DGA0101 Gray Smooth Plastisol**

Version Number 1.2

Revision Date 05/19/2009

Page 1 of 10

Print Date 1/7/2012

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 : DGA0101 Gray Smooth Plastisol
Product code : FO20009912
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 |
| Carbon black | 1333-86-4 | 0.1 - 1 |
| Silica, amorphous, diatomaceous earth | 68855-54-9 | 0.1 - 1 |
| Silica, cristobalite | 14464-46-1 | 0.1 - 1 |
| Stoddard solvent | 8052-41-3 | 0.1 - 1 |
| Naphthalene | 91-20-3 | 0.1 - 1 |
| Antimony trioxide | 1309-64-4 | 1 - 5 |
| Rutile, antimony chromium buff | 68186-90-3 | 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.

POLYONE CORPORATION**MATERIAL SAFETY DATA SHEET****DGA0101 Gray Smooth Plastisol**

Version Number 1.2

Revision Date 05/19/2009

Page 2 of 10

Print Date 1/7/2012

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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2
Revision Date 05/19/2009

Page 3 of 10
Print Date 1/7/2012

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)

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2

Revision Date 05/19/2009

Page 4 of 10

Print Date 1/7/2012

| 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 |
| Carbon black | 3.5 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 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 |
| 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 |

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2

Revision Date 05/19/2009

Page 5 of 10

Print Date 1/7/2012

| | | | | |
|------------------|------------------------|---|-------------|----------|
| | 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 |
| | 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

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2

Revision Date 05/19/2009

Page 6 of 10

Print Date 1/7/2012

| | | | |
|---------------------|-------------------|------------------|------------------|
| Appearance | : Viscous, liquid | Specific Gravity | : Not determined |
| Color | : GREY | 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

| | |
|----------------------------------|---|
| 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 (CO ₂), 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. |
| 1333-86-4 | Carbon black | Systemic effects | Eyes, 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. |
| 8052-41-3 | Stoddard solvent | Systemic effects | Kidney, Liver, central nervous system (CNS). |
| | | Irritant | Eyes, Skin, Respiratory system. |
| 91-20-3 | Naphthalene | Irritant | Eyes. |

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2

Revision Date 05/19/2009

Page 7 of 10

Print Date 1/7/2012

| | | | |
|------------|--------------------------------|------------------|---|
| | | 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. |
| 68186-90-3 | Rutile, antimony chromium buff | Irritant | Eyes, Skin, 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 |
|------------|---------------------------------------|--------------------------------------|---|----------------------|
| 25068-38-6 | Bisphenol A - Epichlorohydrin polymer | Oral LD50 Dermal LD50 | 11,400 mg/kg > 6,000 mg/kg | rat rabbit |
| 1333-86-4 | Carbon black | Oral LD50 Dermal LD50 | > 15,400 mg/kg > 3 gm/kg | rat rabbit |
| 8052-41-3 | Stoddard solvent | Oral LD50 Dermal LD50 | > 5,000 mg/kg > 3,000 mg/kg | rat rabbit |
| 91-20-3 | Naphthalene | LC50 Oral LD50 Dermal LD50 | > 340 mg/m ³ 490 mg/kg > 20 gm/kg | rat rat rabbit |
| 1309-64-4 | Antimony trioxide | Oral LD50 | > 34,600 mg/kg | rat |
| 103-23-1 | Bis (2-ethylhexyl) adipate | Oral LD50Oral LD50Oral LD50 | 9,100 mg/kg 15,000 mg/kg 5,600 mg/kg | rat mouse 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 |
|------------|----------------------|------|------|-----|
| 1333-86-4 | Carbon black | no | 2B | no |
| 14464-46-1 | Silica, cristobalite | no | 1 | no |
| 91-20-3 | Naphthalene | no | 2B | no |
| 1309-64-4 | Antimony trioxide | 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.

Additional Health Hazard Information:

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2

Revision Date 05/19/2009

Page 8 of 10

Print Date 1/7/2012

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.

Additional Health Hazard Information:

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.

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).

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.

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2
Revision Date 05/19/2009

Page 9 of 10
Print Date 1/7/2012

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)

Not applicable

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 COMPOUNDS CHROMIUM III COMPOUNDS ANTIMONY COMPOUNDS | 68186-90-3 | 0.10 - 1.00 |
| 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 | |
| Rutile, antimony chromium buff | 68186-90-3 | 0.10 - 1.00 | |
| 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 | |

POLYONE CORPORATION

MATERIAL SAFETY DATA SHEET

DGA0101 Gray Smooth Plastisol

Version Number 1.2
Revision Date 05/19/2009

Page 10 of 10
Print Date 1/7/2012

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. |
|------------|
| 1309-64-4 |
| 103-23-1 |
| 68186-90-3 |
| 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.