PolyOne

MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 1 of 8 Print Date 1/15/2012

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 8155 Cobb Center Drive, Kennesaw, GA 30152

| Telephone Emergency telephone | : | 1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
|----------------------------------|---|--|
| Product name | : | P0726DNPCM WOLVERINE GRECIAN GREEN |
| Product code | : | FO00002725 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |
| | | |

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight percent |
|----------------------|------------|----------------|
| Silica, cristobalite | 14464-46-1 | 0.1 - 1 |
| Naphthalene | 91-20-3 | 0.1 - 1 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |

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

PolyOne

MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 2 of 8 Print Date 1/15/2012

| 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 doubt seek medical advice. | of |
| 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 e irritation persists, seek medical attention. | ye |
| 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 | : Fullface self-contained breathing apparatus (SCBA) used in positive | • |
| Procedures | pressure mode should be worn to prevent inhalation of airborne | |
| | contaminants. | |
| Unusual Fire/Explosion | : May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) und | er |
| Hazards | fire conditions. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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. | |
| 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 MSD for proper disposal methods. | S |

PolyOne

MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 3 of 8 Print Date 1/15/2012

| 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. EX | POSU | RE 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. |

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MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 4 of 8 Print Date 1/15/2012

| Components | Value | Exposure time | Exposure type | List: |
|----------------------|--------------------|--------------------------------------|----------------------|----------|
| Silica, cristobalite | 0.025 | Time Weighted Average | Respirable fraction. | ACGIH |
| | mg/m3 | (TWA): | | |
| | 0.05 | Time Weighted Average | Respirable dust. | OSHA Z1A |
| | mg/m3 | (TWA): | | |
| | 0.05 | Time Weighted Average | Respirable. | Z3 |
| | mg/m3 | (TWA): | | |
| | 0.15 | Time Weighted Average | Total dust. | Z3 |
| | mg/m3 | (TWA): | | |
| | 0.05 | Time Weighted Average | | MX OEL |
| | mg/m3 | (TWA): | | |
| 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 Appearance Colour Odour Melting point/range Boiling Point: Water solubility
- : liquid
 : viscous, liquid
 : GREEN
 : very faint
 : not applicable
 : not applicable
 : immiscible
- Evaporation rate Specific Gravity Bulk density Vapour pressure Vapour density pH
- Not established
 Not determined
 Not applicable
 Not determined
 Not determined
 Not determined
 Not applicable

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MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 5 of 8 Print Date 1/15/2012

| | 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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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 |
|------------|----------------------|------------------|-------------------------------|
| 14464-46-1 | Silica, cristobalite | Systemic effects | Respiratory system. |
| | | 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 |
| 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 |
|---------|---------------|-------------|-------------|---------|
| 91-20-3 | Naphthalene | LC50 | > 340 mg/m3 | rat |
| | | Oral LD50 | 490 mg/kg | rat |
| | | Dermal LD50 | > 20 gm/kg | rabbit |

Carcinogenicity

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

PolyOne

MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 6 of 8 Print Date 1/15/2012

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|------------|----------------------|------|------|-----|
| 14464-46-1 | Silica, cristobalite | no | 1 | no |
| 91-20-3 | Naphthalene | 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:

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 Contaminated packaging | 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. 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. |
| | : Refer to specific regulation. |
| ICAO/IATA | |

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MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010

Page 7 of 8 Print Date 1/15/2012

| S Regulations: | | | | | | |
|---|---|--|--|--|---|-----------------------------------|
| - | | | | | | |
| OSHA Status | : | Classified as haza | rdous based on | components | | |
| TSCA Status | : | All components of TSCA Inventory. | of this product a | re listed on | or exem | npt from the |
| S. EPA CERCLA Hazardo | us Subs | stances (40 CFR 30 |)2) | | | |
| not applicable | | | | | | |
| California Propositio 65 | n : | WARNING! Thi California to caus chemical known t | e cancer., WAR to the State of C | RNING! Thi | s produ | ct contains a |
| | | | stance | t is Not App | licabla | under this rea |
| nless specific chemicals are | e identi | ely Hazardous Subs | stance | t is Not App | licable | under this reg |
| nless specific chemicals are ARA Title III Section 313 | e identi Toxic C | ely Hazardous Subs fied under this sect Chemicals: | stance ion, this produc | | | - |
| nless specific chemicals are ARA Title III Section 313 7 nless specific chemicals are Chemical Name | e identi Toxic C | ely Hazardous Subs fied under this sect Chemicals: | stance ion, this produc ion, this produc CAS-1 | t is Not App No. | licable Weight | under this reg |
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| nless specific chemicals are ARA Title III Section 313 T nless specific chemicals are Chemical Name NAPHTHALENE anadian Regulations: National Pollutant Re Chemical Name Bis (2-ethylhexyl) adipate | e identi Toxic C e identi lease Ir | ely Hazardous Subs fied under this sect Chemicals: fied under this sect | stance ion, this produc ion, this produc CAS-I Q1-20-3 CAS-No. | t is Not App No. 3 Weight percent 0.10 - 1 | licable Weight 0.10 - 2 | under this reg percent 1.00 |
| nless specific chemicals are ARA Title III Section 313 T nless specific chemicals are Chemical Name NAPHTHALENE anadian Regulations: National Pollutant Re Chemical Name Bis (2-ethylhexyl) adipate Phthalocyanine green | e identi Toxic C e identi lease Ir | ely Hazardous Subs fied under this sect Chemicals: fied under this sect | stance ion, this produc ion, this produc CAS-I 91-20-3 CAS-No. 103-23-1 1328-53-6 | t is Not App No. 3 Weight percent 0.10 - 1. 1.00 - 5 | licable Weight 0.10 - 1 0.00 00 | under this reg percent 1.00 |
| nless specific chemicals are ARA Title III Section 313 T nless specific chemicals are Chemical Name NAPHTHALENE anadian Regulations: National Pollutant Re Chemical Name Bis (2-ethylhexyl) adipate Phthalocyanine green Zinc | e identi Toxic C e identi lease Ir | ely Hazardous Subs fied under this sect Chemicals: fied under this sect | stance ion, this produc CAS-1 91-20-3 CAS-No. 103-23-1 1328-53-6 7440-66-6 | t is Not App No. 3 Weight percent 0.10 - 1. 1.00 - 5. 0.10 - 1. | licable Weight 0.10 - 1 0.00 - 1 00 00 00 00 | under this reg percent 1.00 |
| NAPHTHALENE anadian Regulations: National Pollutant Re Chemical Name Bis (2-ethylhexyl) adipate Phthalocyanine green | e identi Toxic C e identi lease Ir | ely Hazardous Subs fied under this sect Chemicals: fied under this sect | stance ion, this produc ion, this produc CAS-I 91-20-3 CAS-No. 103-23-1 1328-53-6 | t is Not App No. 3 Weight percent 0.10 - 1. 1.00 - 5 | licable Weight 0.10 - 1 0.00 - 1 00 00 00 00 00 00 | under this reg percent 1.00 |

PolyOne

MATERIAL SAFETY DATA SHEET P0726DNPCM WOLVERINE GRECIAN GREEN

Version Number 1.15 Revision Date 10/21/2010 Page 8 of 8 Print Date 1/15/2012

| WHMIS Ingredient Disclosure List | | |
|---|---|---|
| CAS-No. 103-23-1 1328-53-6 95-63-6 | | |
| DSL | : | All of the components of this product are listed on the Canadian Inventories or are exempt. However, at least one component of this product is on the Canadian Non-Domestic Substances List (NDSL). Quantity use in Canada is restricted by regulations. |
| 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.