

MATERIAL SAFETY DATA SHEET

KANG KART GREEN

Version Number 1.0 Revision Date 01/22/2003 Page 1 of 7 Print Date *11/10/2011*

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012

| NON-EMERGENCY TELEPHONE | : | Product Stewardship (770) 271-5902 |
|-------------------------------|---|--|
| Emergency telephone number | : | CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident). |
| Product name | : | KANG KART GREEN |
| Product code | : | CC10030092 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|-------------------|------------|----------|
| Carbon black | 1333-86-4 | 0.1 - 1 |
| Titanium dioxide | 13463-67-7 | 5 - 10 |
| Zinc stearate | 557-05-1 | 5 - 10 |
| Calcium carbonate | 1317-65-3 | 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 Ingestion Eyes | Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Resin particles, like other inert materials, are mechanically irritating to eves. |
| Skin | : Experience shows no unusual dermatitis hazard from routine handling. |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. |



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

| ion Number 1.0 sion Date 01/22/2003 | Page 2 Print Date 11/10/2 |
|---|---|
| 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 o 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 a least 15 minutes. If eye irritation persists, seek medical attention. |
| Skin | : Wash off with soap and plenty of water. If skin irritation persists see medical attention. |
| | 5. FIRE-FIGHTING MEASURES |
| Flash point | : Not applicable |
| Flammable Limits Upper explosion limit Lower explosion limit Autoignition temperature Suitable extinguishing media Special Fire Fighting | Not applicable Not applicable Not relevant Carbon dioxide blanket, Water spray, dry powder, foam. Fullface self-contained breathing apparatus (SCBA) used in positive |
| Procedures Unusual Fire/Explosion Hazards | pressure mode should be worn to prevent inhalation of airborne contaminants.None |
| | 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 no 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 1 of this MSDS for proper disposal methods. |
| | 7. HANDLING AND STORAGE |
| Handling | : Take measures to prevent the build up of electrostatic charge. Heat |



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

| sion Number 1.0 ision Date 01/22/2003 | | Page 3 of 7 Print Date 11/10/2011 |
|--|------|---|
| | | 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. EXF | OSUF | 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. |
| | | |

Exposure limit(s)

| Components | Value | Exposure time | Exposure type | List: |
|-------------------|-----------|-----------------------|-----------------------|---------|
| Calcium carbonate | 10 mg/m3 | Time Weighted Average | Total dust. | ACGIH |
| | | (TWA): | | |
| Calcium carbonate | 5 mg/m3 | PEL: | Respirable dust. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| Carbon black | 3.5 mg/m3 | Time Weighted Average | Total dust. as carbon | ACGIH |
| | | (TWA): | black | |
| Carbon black | 3.5 mg/m3 | PEL: | Total dust. as carbon | OSHA Z1 |
| | | | black | |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average | Dust. | ACGIH |
| | | (TWA): | | |
| Titanium dioxide | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| Zinc stearate | 5 mg/m3 | PEL: | Respirable fraction. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| Zinc stearate | 10 mg/m3 | Time Weighted Average | as stearates | ACGIH |
| | | (TWA): | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color Odor

: Solid : Pellets : GREEN : Very faint Evaporation rate : Not applicable. Specific Gravity : Not determined Pully density : Not actablished Bulk density Vapor pressure

: Not established : Not applicable



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

| Version Number 1.0 Revision Date 01/22/2003 | | Pag Print Date 11/1 | e 4 of 7 //2011 |
|---|---|---|--------------------|
| Melting point/range Boiling Point: Water solubility | | Vapor density : Not applicable pH : Not applicable | |
| | 10. STABILITY AND REA | CTIVITY | |
| Stability | : Stable. | | |
| Hazardous Polymerization | : Will not occur. | | |
| Conditions to avoid | : Keep away from oxidizing decomposition, do not over | g agents and open flame. To avoid therr erheat. | nal |
| Incompatible Materials | : Incompatible with strong | acids and oxidizing agents. | |
| Hazardous decomposition products | | arbon monoxide (CO), oxides of nitrogen naterials, and smoke are all possible. | 1 |

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 |
|------------|-------------------|------------------|---------------------------------|
| 1333-86-4 | Carbon black | Systemic effects | Eyes, Respiratory system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 557-05-1 | Zinc stearate | Systemic effects | Eyes, Skin, Respiratory system. |
| 1317-65-3 | Calcium carbonate | Irritant | Eyes, Skin. |
| | | Systemic effects | 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 |
|-----------|---------------|-------------|---------------|---------|
| 1333-86-4 | Carbon black | Oral LD50 | >15,400 mg/kg | rat |
| | | Dermal LD50 | > 3 gm/kg | rabbit |
| 557-05-1 | Zinc stearate | Oral LD50 | > 10 gm/kg | 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 |

IARC Carcinogen Classifications:

1 - The component is carcinogenic to humans.



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

Version Number 1.0 Revision Date 01/22/2003 Page 5 of 7 Print Date 11/10/2011

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:

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). 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.

| | 12. ECOLOGICAL INFORMATION |
|-------------------------------|--|
| Persistence and degradability | : Not readily biodegradable. |
| Environmental Toxicity | : Chemicals are not readily available as they are bound within the matri of the polymer. |
| Bioaccumulation Potential | : Chemicals are not readily available as they are bound within the matri of the polymer. |
| Additional advice | : No data available. |
| | 13. DISPOSAL CONSIDERATIONS |
| Product | : Like most thermoplastics 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 materia 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 | : Refer to specific regulation. |



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

| | | | Print D | Date 11/10/2 |
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| IMO / IMDG | : Refer to | specific regulation. | | |
| | 15. REGUL | ATORY INFORMATIO | ON | |
| US Regulations: | | | | |
| OSHA Status | : Classifie | d as hazardous based on o | components. | |
| TSCA Status | : All com Inventor | ponents of this product are y. | e listed on or exempt f | rom the TSCA |
| US. EPA CERCLA Hazardo | ous Substances (4 | 0 CFR 302) | | |
| Not applicable | | | | |
| | | | | |
| California Propositio 65 | on : This prod | duct does not contain a su | bstance listed by Calif | fornia Prop 65 |
| | | | | |
| | | | | |
| SARA Title III Section 313 | Toxic Chemicals: | | | |
| Chemical Na | me | CAS-No. | Weight % | |
| | me | | Weight % 05.84 | |
| Chemical Na | me | CAS-No. | | |
| Chemical Na ZINC COMP | me OUNDS | CAS-No. | | |
| Chemical Na ZINC COMP Canadian Regulations: | me OUNDS on : D2A | CAS-No. | | |
| Chemical Na ZINC COMP Canadian Regulations: WHMIS Classification | me OUNDS on : D2A | CAS-No. | | |
| Chemical Na ZINC COMP Canadian Regulations: WHMIS Classification WHMIS Ingredient E CAS-No. | me OUNDS on : D2A Disclosure List . All com | CAS-No. | 05.84 re on the Canadian Do | mestic |
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| Chemical Na ZINC COMP Canadian Regulations: WHMIS Classification WHMIS Ingredient D CAS-No. 557-05-1 DSL National Inventories: Australia AICS | me OUNDS on : D2A Disclosure List : All com Substanc : Listed. | CAS-No. 557-05-1 | 05.84 re on the Canadian Do | omestic |



MATERIAL SAFETY DATA SHEET

KANG KART GREEN

Version Number 1.0 Revision Date 01/22/2003 Page 7 of 7 Print Date 11/10/2011

| Korea KECI | : | Not determined. |
|------------|---|-----------------|
| Korea KECI | : | Not determined |
| | | |

Philippines PICCS

16. OTHER INFORMATION

: Not determined.

l in this Safety Data Sheet is correct to the best of our knowled

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.