

MATERIAL SAFETY DATA SHEET BRIGHT WHITE TONER

Version Number 1.0 Revision Date 06/12/2003

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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 | : | BRIGHT WHITE TONER |
| Product code | : | CC10038068 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

2. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

| Components | CAS-No. | Weight % |
|---|------------|----------|
| C.I. Pigment Blue 28 | 1345-16-0 | 1 - 5 |
| Diphosphoric acid, ammonium manganese(3+) salt (1:1:1) | 10101-66-3 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 60 - 100 |

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 Ingestion Eyes Skin | Resin particles, like other inert materials, can be mechanically irritating. May be harmful if swallowed. Particulates, like other inert materials can be mechanically irritating. Experience shows no unusual dermatitis hazard from routine handling. |
| Chronic exposure | : Refer to Section 11 for Toxicological Information. |





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| 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 seel 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 Procedures Unusual Fire/Explosion Hazards | Not applicable Not applicable Not relevant Carbon dioxide blanket, Water spray, dry powder, foam. Fullface self-contained breathing apparatus (SCBA) used in positive 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 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. |
| | 7. HANDLING AND STORAGE |
| Handling | : Take measures to prevent the build up of electrostatic charge. Heat |



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| | | 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. EXPOS | SUR | RE CONTROLS / PERSONAL PROTECTION |
| Respiratory protection | : | No personal respiratory protective equipment normally required. If dusty conditions occur wear appropriate respiratory protection. |
| 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: |
|----------------------|-----------|-----------------------|-------------------|---------|
| C.I. Pigment Blue 28 | 0.10 | PEL: | Total dust. as Co | OSHA Z1 |
| | mg/m3 | | | |
| | 0.02 | Time Weighted Average | as Co | ACGIH |
| | mg/m3 | (TWA): | | |
| Diphosphoric acid, | 5 mg/m3 | Ceiling Limit Value: | as Mn | OSHA Z1 |
| ammonium | | | | |
| manganese(3+) salt | | | | |
| (1:1:1) | | | | |
| Diphosphoric acid, | 0.2 mg/m3 | Time Weighted Average | as Mn | ACGIH |
| ammonium | | (TWA): | | |
| manganese(3+) salt | | | | |
| (1:1:1) | | | | |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average | | ACGIH |
| | | (TWA): | | |
| Titanium dioxide | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Appearance Color : Solid: powder, granular: WHITE

Evaporation rate Specific Gravity Bulk density

Not applicable.Not applicable.Not determined



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| Odor Melting point/range Boiling Point: Water solubility | : | Very faint Not determined Not applicable Insoluble | Vapor pressure Vapor density pH | : | Not applicable Not applicable Not applicable | |
|---|---|---|---------------------------------------|------|--|--|
| | | 10. STABILITY AND RE | EACTIVITY | | | |
| Stability | | : Stable. | | | | |
| Hazardous Polymerization | | : Will not occur. | | | | |
| Conditions to avoid | | : To avoid thermal decon oxidizing agents and op | * · | eat. | Keep away from | |
| Incompatible Materials | | : Incompatible with stron | g acids and oxidizing a | ıgen | ts. | |
| Hazardous decomposition products | | : Carbon dioxide (CO2), (NOx), other hazardous | | | | |

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 |
|------------|--|------------------|---------------------------------|
| 1345-16-0 | C.I. Pigment Blue 28 | Irritant | Eyes, Skin, Respiratory system. |
| | | sensitizer | Skin. |
| 10101-66-3 | Diphosphoric acid, ammonium manganese(3+) salt (1:1:1) | Irritant | Eyes, Skin. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |

Carcinogenicity:

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|-----------|----------------------|------|------|-----|
| 1345-16-0 | C.I. Pigment Blue 28 | 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.



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| | 12. ECOLOGICAL INFORMATION |
|-------------------------------|--|
| Persistence and degradability | : Not readily biodegradable. |
| Environmental Toxicity | : Adverse ecological impact is not known or expected under normal use |
| Bioaccumulation Potential | : Not inherently biodegradable. |
| 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 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 | : Not regulated for transportation. |
| ICAO/IATA | : Not regulated for transportation. |
| IMO / IMDG | : Not regulated for transportation. |
| | 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 | : This product does not contain a substance listed by California Prop 65 |

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SARA Title III Section 302 Extremely Hazardous Substance

Not applicable

SARA Title III Section 313 Toxic Chemicals:

| Chemical Name | CAS-No. | Weight % |
|---------------------|------------|----------|
| COBALT COMPOUNDS | 1345-16-0 | 4.00 |
| MANGANESE COMPOUNDS | 10101-66-3 | 3.00 |

Canadian Regulations:

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

| CAS-No. | |
|------------|--|
| 10101-66-3 | |

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. |

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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.