# POLYONE CORPORATION

## MATERIAL SAFETY DATA SHEET

## *Fudge Brownie D-29*



### 1. PRODUCT AND COMPANY IDENTIFICATION

**POLYONE CORPORATION**
**33587 Walker Road, Avon Lake, OH 44012**

| | | |
|---|---|---|
| Telephone | : | Product Stewardship (770) 271-5902 |
| **Emergency telephone number** | : | **CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).** |

| | | |
|---|---|---|
| Product name | : | Fudge Brownie D-29 |
| Product code | : | CC10093180 |
| Chemical Name | : | Mixture |
| CAS-No. | : | Mixture |
| Product Use | : | Industrial Applications |

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components | CAS-No. | Weight % |
|---|---|---|
| Carbon black | 1333-86-4 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |
| Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164) | 68412-38-4 | 10 - 30 |
| 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 | : | Particulates, like other inert materials can be mechanically irritating. Excessive inhalation of product vapors, especially during heating or processing, may be irritating to respiratory system. |
| Ingestion | : | May be harmful if swallowed. |
| Eyes | : | Particulates, like other inert materials can be mechanically irritating. |
| Skin | : | Experience shows no unusual dermatitis hazard from routine handling. |

**Chronic exposure** : Refer to Section 11 for Toxicological Information.

**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 seek medical attention.

## 5. FIRE-FIGHTING MEASURES

Flash point : Not applicable

Flammable Limits
Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Autoignition temperature : Not applicable
Suitable extinguishing media : Carbon dioxide blanket, water spray, dry powder, foamnone.

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 : Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

## 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 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. 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)

| Components | Value | Exposure time | Exposure type | List: |
|---|---|---|---|---|
| Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164) | 5 mg/m3 | Ceiling Limit Value: | Dust. as Mn | OSHA Z1 |
| | 0.5 mg/m3 | PEL: | Dust. as Sb | OSHA Z1 |
| | 0.2 mg/m3 | Time Weighted Average (TWA): | as Mn | ACGIH |
| | 0.5 mg/m3 | Time Weighted Average (TWA): | as Sb | ACGIH |
| | 0.2 mg/m3 | Time Weighted Average (TWA): | as Mn | MX OEL |
| Calcium carbonate | 5 mg/m3 | PEL: | Respirable fraction. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average (TWA): | | MX OEL |
| | 20 mg/m3 | Short Term Exposure Limit (STEL): | | MX OEL |
| Carbon black | 3.5 mg/m3 | Time Weighted Average (TWA): | Total dust. as carbon black | ACGIH |
| | 3.5 mg/m3 | PEL: | Total dust. as carbon black | OSHA Z1 |
| Titanium dioxide | 10 mg/m3 | Time Weighted Average (TWA): | | ACGIH |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 20 mg/m3 | Short Term Exposure Limit (STEL): | as Ti | MX OEL |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | | | |
|---|---|---|---|---|---|
| Form | : | Solid | Evaporation rate | : | Not applicable |
| Appearance | : | Pellets | Specific Gravity: | : | Not determined |
| Color | : | BROWN | Bulk density | : | Not established |
| Odor | : | Very faint | Vapor pressure | : | Not applicable |
| Melting point/range | : | Not determined | Vapour density | : | Not applicable |
| Boiling Point: | : | Not applicable | pH | : | Not applicable |
| Water solubility | : | Insoluble | | | |

## 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 : Avoid contact with strong oxidizers. Also, avoid contact with acetal or acetal copolymers and with amine containing materials during

processing. At processing conditions, these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other. Prevent cross contamination of feedstocks.

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 (approximately 30 minutes or more) above 392 °F (200 °C) or short term heating at 482 °F (250 °C) may result in product decomposition and evolution of carbon monoxide and hydrogen chloride.

## 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. |
| 68412-38-4 | Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164) | Irritant | Eyes, Skin. |
| 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<br>Dermal LD50 | > 15,400 mg/kg<br>> 3 gm/kg | rat<br>rabbit |

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

| CAS-No. | Chemical Name | OSHA | IARC | NTP |
|---|---|---|---|---|
| 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:**

**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.**

## 12. ECOLOGICAL INFORMATION

| | | |
|---|---|---|
| Persistence and degradability | : | Not readily biodegradable. |
| Environmental Toxicity | : | Chemicals are not readily available as they are bound within the polymer matrix. |
| Bioaccumulation Potential | : | Chemicals are not readily available as they are bound within the polymer matrix. |
| Additional advice | : | No data available |

## 13. DISPOSAL CONSIDERATIONS

| | | |
|---|---|---|
| Product | : | Like most thermoplastic plastics 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 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 | : | Not regulated for transportation. |
| 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)

Not applicable

California Proposition 65 : Not applicable

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 % |
|---|---|---|
| MANGANESE COMPOUNDSANTIMONY COMPOUNDS | 68412-38-4 | 10.00 - 30.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight % | NPRI ID# |
|---|---|---|---|
| Manganese antimony titanium brown rutile (C.I. Pigment Yellow 164) | 68412-38-4 | 10.00 - 30.00 | 147 |
| | | 10.00 - 30.00 | 17 |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. |
|---|
| 68412-38-4 |

| 1333-86-4 |
|---|

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.