

## MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 1 of 7
Revision Date 05/21/2008 Print Date 1/3/2012

#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

Telephone : Product Stewardship (440) 930-1395

Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

or accident).

Product name : BROWN GREY 7013 ACETAL

Product code : CC10111558 Chemical Name : Mixture CAS-No. : Mixture

Product Use : Industrial Applications

## 2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components                            | CAS-No.    | Weight % |
|---------------------------------------|------------|----------|
| Phenol, 2-(2H-benzotriazol-2-yl)-4,6- | 25973-55-1 | 5 - 10   |
| bis(1,1-dimethylpropyl)-              |            |          |
| Titanium dioxide                      | 13463-67-7 | 5 - 10   |

### 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 enduser (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. If

overheated or burnt, the polymer releases formaldehyde.

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.



### MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 2 of 7
Revision Date 05/21/2008 Print Date 1/3/2012

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 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, 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

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. If overheated or burnt, the polymer releases formaldehyde. May burn

with invisible flame.

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



### MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 3 of 7
Revision Date 05/21/2008 Print Date 1/3/2012

Handling : Take measures to prevent the build up of electrostatic charge. Open

container only in a well-ventilated area. 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.

When temperatures exceed 230°C (446°F) and ventilation is inadequate to maintain concentrations below exposure limits, use a positive air supplied respirator. Air purifying respirators may not

provide adequate protection.

Eye/Face Protection : Safety glasses with side-shields Wear face-shield and protective suit

for abnormal processing problems.

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:   |
|------------------|----------|---------------------------|---------------|---------|
| Titanium dioxide | 10 mg/m3 | Time Weighted Average     |               | ACGIH   |
|                  |          | (TWA):                    |               |         |
|                  | 15 mg/m3 | PEL:                      | Total dust.   | OSHA Z1 |
|                  | 10 mg/m3 | Time Weighted Average     | as Ti         | MX OEL  |
|                  |          | (TWA):                    |               |         |
|                  | 20 mg/m3 | Short Term Exposure Limit | as Ti         | MX OEL  |
|                  |          | (STEL):                   |               |         |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Not applicable Form : Solid Evaporation rate Appearance pellets, Slabs Specific Gravity Not determined Color : BROWN Bulk density Not established Odour : formaldehyde Vapour pressure : Not applicable : Not determined : Not applicable Melting point/range Vapour density



### MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 4 of 7
Revision Date 05/21/2008 Print Date 1/3/2012

Boiling Point: : Not applicable pH : Not applicable

Water solubility : Insoluble

#### 10. STABILITY AND REACTIVITY

Stability : Stable.

Hazardous Polymerization : Will not occur.

Conditions to avoid : Maintain polymer temperature below 230°C (446°F). Avoid

prolonged exposure at or above recommended processing

temperature.

Incompatible Materials : Incompatible with strong oxidizers and with strong acids and bases

(decomposes to form formaldehyde). At melt temperatures, acetal resins are incompatible with halogenated polymers such as vinyl (PVC) and any elastomers containing any halogenated polymers. At processing conditions, these materials are mutually destructive and involve rapid degradation. Even small amounts of such contaminants can cause sudden and spontaneous formaldehyde gas formation. Workplace fume well above threshold levels are a likely result. Unsafe pressurization of equipment such as extruder or mold can also result. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of halogenated materials from coming in contact with the acetal. Prevent contamination of

virgin or rework resin.

Hazardous decomposition

products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible. If

overheated or burnt, the polymer releases formaldehyde.

Decomposition of this material depends on the length of time it is exposed to elevated temperatures. At the recommended processing temperature of 210°C-220°C (410°F-428°F), decomposition should not be significant until after 30 minutes. Decomposition may be accelerated by contaminants, pigments and/or other additives.

## 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                        |
|------------|---|------------------|-------------------------------------|
| 25973-55-1 | Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl)- | Systemic effects | Kidney, Liver, reproductive system. |
| 13463-67-7 | Titanium dioxide  | Systemic effects | Respiratory system.                 |



## MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 5 of 7
Revision Date 05/21/2008 Print Date 1/3/2012

#### 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.

| 12 | FCOL | OCICAL | INFORMA | ATION |
|----|------|--------|---------|-------|
|    |      |        |         |       |

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 : Not applicable

# 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.



## MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

Version Number 1.0 Page 6 of 7 Revision Date 05/21/2008 Print Date 1/3/2012

#### 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 : Not applicable

65

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

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No.   | Weight %    | NPRI ID# |
|---------------|-----------|-------------|----------|
| Zinc oxide    | 1314-13-2 | 0.10 - 1.00 |          |

WHMIS Classification : D2A

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 : Listed

China IECS : Listed



# MATERIAL SAFETY DATA SHEET

# **BROWN GREY 7013 ACETAL**

 Version Number 1.0
 Page 7 of 7

 Revision Date 05/21/2008
 Print Date 1/3/2012

Europe EINECS : Listed

Japan ENCS : Not determined

Korea KECI : Listed

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.