

MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

Version Number 1.3 Page 1 of 8
Revision Date 04/23/2008 Print Date 1/3/2012

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

8155 Cobb Center Drive, Kennesaw, GA 30152

Telephone : Product Stewardship (770) 590-3500 x.3563

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

or accident).

Product name : EN54117A EXP. PVC FREE 192 C

Product code : FO20007025 Chemical Name : Mixture CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight % |
|--|-------------|----------|
| Silica, amorphous | 7631-86-9 | 0.1 - 1 |
| Titanium dioxide | 13463-67-7 | 0.1 - 1 |
| Silica, amorphous, fumed, crystal-free | 112945-52-5 | 1 - 5 |
| Zinc oxide | 1314-13-2 | 1 - 5 |
| Calcium carbonate | 471-34-1 | 10 - 30 |

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/skin irritation.

Skin : Experience shows no unusual dermatitis hazard from routine handling.



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

 Version Number 1.3
 Page 2 of 8

 Revision Date 04/23/2008
 Print Date 1/3/2012

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 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 : 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

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.

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 MSDS

for proper disposal methods.

7. HANDLING AND STORAGE



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

Version Number 1.3 Page 3 of 8 Revision Date 04/23/2008 Print Date 1/3/2012

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. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection : Under normal handling conditions a respirator may not be 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)



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

Version Number 1.3 Revision Date 04/23/2008 Page 4 of 8 Print Date 1/3/2012

| Components | Value | Exposure time | Exposure type | List: |
|--|-----------|-----------------------------------|------------------------|---------|
| (TWA): | | | | ACGIH |
| | 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 |
| Silica, amorphous | 0.8 mg/m3 | Time Weighted Average (TWA): | | Z3 |
| | 10 mg/m3 | Time Weighted Average (TWA): | Inhalable particulate. | MX OEL |
| | 3 mg/m3 | Time Weighted Average (TWA): | Respirable dust. | MX OEL |
| Silica, amorphous, fumed, crystal-free | 0.8 mg/m3 | Time Weighted Average (TWA): | | Z3 |
| | 10 mg/m3 | Time Weighted Average (TWA): | Inhalable particulate. | MX OEL |
| | 3 mg/m3 | Time Weighted Average (TWA): | Respirable dust. | MX OEL |
| | | Time Weighted Average (TWA): | | ACGIH |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average (TWA): | as Ti | MX OEL |
| | 20 mg/m3 | Short Term Exposure Limit (STEL): | as Ti | MX OEL |
| Zinc oxide | 2 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | Respirable fraction. | ACGIH |
| | 5 mg/m3 | PEL: | Fume. | OSHA Z1 |
| | 5 mg/m3 | PEL: | Respirable fraction. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | Fume. | MX OEL |
| | 10 mg/m3 | Time Weighted Average (TWA): | Dust. | MX OEL |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | Fume. | MX OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid Evaporation rate : Not established : Viscous, liquid Specific Gravity Appearance Not determined Color : RED Bulk density : Not applicable : Very faint Odour Vapour pressure : Not determined Melting point/range : Not applicable Vapour density : Not determined



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

Version Number 1.3 Page 5 of 8 Revision Date 04/23/2008 Print Date 1/3/2012

Boiling Point: : Not applicable pH : Not applicable

Water solubility : Immiscible

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), other hazardous materials, and smoke are all possible.

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 |
|-------------|---------------------------|------------------|---------------------------|
| 7631-86-9 | Silica, amorphous | Irritant | Eyes, Respiratory system. |
| 13463-67-7 | Titanium dioxide | Systemic effects | Respiratory system. |
| 112945-52-5 | Silica, amorphous, fumed, | Irritant | Eyes, Respiratory system. |
| | crystal-free | | |
| 1314-13-2 | Zinc oxide | Systemic effects | Respiratory system. |
| 471-34-1 | Calcium carbonate | Irritant | Eyes, Skin. |

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 |
|-------------|---------------------------|-----------|-------------|------------|
| 7631-86-9 | Silica, amorphous | Oral | 15,000 | mouserat |
| | | LD50Oral | mg/kg22,500 | |
| | | LD50 | mg/kg | |
| 112945-52-5 | Silica, amorphous, fumed, | Oral LD50 | 3,160 mg/kg | rat |
| | crystal-free | | | |
| 1314-13-2 | Zinc oxide | LC50 | 2500 mg/m3 | mouse |
| | | Oral | 7,950 | mousemouse |
| | | LD50Oral | mg/kg7,950 | |
| | | LD50 | mg/kg | |
| 471-34-1 | Calcium carbonate | Oral LD50 | 6,450 mg/kg | rat |

Carcinogenicity



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

Version Number 1.3 Page 6 of 8 Revision Date 04/23/2008 Print Date 1/3/2012

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. 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 : 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 : Refer to specific regulation.

ICAO/IATA (air) : Refer to specific regulation.

IMO / IMDG (maritime) : Refer to specific regulation.

15. REGULATORY INFORMATION

US Regulations:



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

 Version Number 1.3
 Page 7 of 8

 Revision Date 04/23/2008
 Print Date 1/3/2012

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

| Chemical Name | CAS-No. | Weight % |
|----------------|-----------|-------------|
| ZINC COMPOUNDS | 1314-13-2 | 1.00 - 5.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight % | NPRI ID# |
|---------------|-----------|-------------|----------|
| Zinc oxide | 1314-13-2 | 1.00 - 5.00 | |

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No. | |
|-------------|--|
| 112945-52-5 | |
| 1314-13-2 | |

DSL : All components of this product are on the Canadian Domestic

Substances List (DSL) or are exempt.

National Inventories:



MATERIAL SAFETY DATA SHEET

EN54117A EXP. PVC FREE 192 C

 Version Number 1.3
 Page 8 of 8

 Revision Date 04/23/2008
 Print Date 1/3/2012

Australia AICS : Not determined

China IECS : Not determined

Europe EINECS : Listed

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.