

## MATERIAL SAFETY DATA SHEET

## **EXPLAS70R BLACK STREAKER #1**

 Version Number 1.0
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 Revision Date 08/02/2013
 Print Date 8/2/2013

#### 1. PRODUCT AND COMPANY IDENTIFICATION

#### POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE

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

number or accident).

Product name : EXPLA570R BLACK STREAKER #1

Product code : VC10009438 Chemical Name : Mixture CAS-No. : Mixture

Product Use : Industrial Applications

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Components                           | CAS-No.   | Weight percent |
|--------------------------------------|-----------|----------------|
| Styrene                              | 100-42-5  | 0.1 - 1        |
| Carbon black                         | 1333-86-4 | 1 - 5          |
| Paraffin waxes and Hydrocarbon waxes | 8002-74-2 | 1 - 5          |

### 3. HAZARDS IDENTIFICATION

### **EMERGENCY OVERVIEW**

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. 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. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

#### POTENTIAL HEALTH EFFECTS

**Routes of Exposure:** : Inhalation, Ingestion, Skin contact

Acute exposure

Inhalation : Resin particles, like other inert materials, can be mechanically

irritating.

Ingestion : May be harmful if swallowed.

Eyes : Resin particles, like other inert materials, are mechanically irritating to

eyes.

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



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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. FIREFIGHTING MEASURES

Flash point not applicable

Flammable Limits

Upper explosion limit : not applicable not applicable Lower explosion limit Not applicable Auto-ignition temperature

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

Unusual Fire/Explosion

Hazards

contaminants. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under

fire conditions. 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 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.



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#### 7. HANDLING AND STORAGE

Handling : Take measures to prevent the build up of electrostatic charge. 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. Keep in a dry, cool place.

### 8. EXPOSURE 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 : Handle in accordance with good industrial hygiene and safety
Considerations practice. Wash hands before breaks and at the end of workday

practice. Wash hands before breaks and at the end of workday. This product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the

user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including VCM or dusts that may be released during heating or processing are

below regulated levels.

Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide

appropriate exhaust ventilation at machinery.

Exposure limit(s)



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| Components                              | Value                | Exposure time                     | Exposure type       | List:    |
|---|----------------------|-----------------------------------|---------------------|----------|
| Carbon black                            | 3.5 mg/m3            | Recommended exposure limit (REL): |                     | NIOSH    |
|   | 0.1 mg/m3            | Recommended exposure limit (REL): |                     | NIOSH    |
|   | 3.5 mg/m3            | PEL:                              |                     | OSHA Z1  |
|   | 3.5 mg/m3            | Time Weighted Average (TWA):      |                     | OSHA Z1A |
|   | 3.5 mg/m3            | Time Weighted Average (TWA):      |                     | MX OEL   |
|   | 7 mg/m3              | Short Term Exposure Limit (STEL): |                     | MX OEL   |
|   | 3 mg/m3              | Time Weighted Average (TWA):      | Inhalable fraction. | ACGIH    |
| Paraffin waxes and<br>Hydrocarbon waxes | 2 mg/m3              | Time Weighted Average (TWA):      | Fume.               | ACGIH    |
|   | 2 mg/m3              | Recommended exposure limit (REL): | Fume.               | NIOSH    |
|   | 2 mg/m3              | Time Weighted Average (TWA):      | Fume.               | OSHA Z1A |
|   | 2 mg/m3              | Time Weighted Average (TWA):      | Fume.               | MX OEL   |
|   | 6 mg/m3              | Short Term Exposure Limit (STEL): | Fume.               | MX OEL   |
| Styrene                                 | 20 ppm               | Time Weighted Average (TWA):      |                     | ACGIH    |
|   | 40 ppm               | Short Term Exposure Limit (STEL): |                     | ACGIH    |
|   | 50 ppm<br>215 mg/m3  | Recommended exposure limit (REL): |                     | NIOSH    |
|   | 100 ppm<br>425 mg/m3 | Short Term Exposure Limit (STEL): |                     | NIOSH    |
|   | 100 ppm              | Time Weighted Average (TWA):      |                     | OSHA Z2  |
|   | 200 ppm              | Ceiling Limit Value:              |                     | OSHA Z2  |
|   | 600 ppm              | Maximum concentration:            |                     | OSHA Z2  |
|   | 50 ppm<br>215 mg/m3  | Time Weighted Average (TWA):      |                     | OSHA Z1A |
|   | 100 ppm<br>425 mg/m3 | Short Term Exposure Limit (STEL): |                     | OSHA Z1A |
|   | 50 ppm<br>215 mg/m3  | Time Weighted Average (TWA):      |                     | MX OEL   |
|   | 100 ppm<br>425 mg/m3 | Short Term Exposure Limit (STEL): |                     | MX OEL   |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : solid Evapouration rate : Not applicable Appearance : pellets, powder Specific Gravity : Not determined



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: BLACK Colour Bulk density Not established Odour : very faint Vapour pressure not applicable Melting point/range : Not determined Vapour density : not applicable Boiling Point: pН : not applicable : not applicable

Water solubility : insoluble

### 10. STABILITY AND REACTIVITY

Stability : The product is stable if stored and handled as prescribed.

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.

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                   |
|-----------|--------------------|------------------|--------------------------------|
| 100-42-5  | Styrene            | Irritant         | Eyes, Respiratory system.      |
|           |                    | Systemic effects | Eyes, Skin, Respiratory        |
|           |                    |                  | system, Liver, central nervous |
|           |                    |                  | system (CNS).                  |
| 1333-86-4 | Carbon black       | Systemic effects | Eyes, Respiratory system.      |
| 8002-74-2 | Paraffin waxes and | Systemic effects | Eyes, Skin, Respiratory        |
|           | Hydrocarbon waxes  |                  | 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 |
|-----------|---------------|-------------|----------------|---------|
| 100-42-5  | Styrene       | LC50        | 12 gm/m3       | rat     |
|           |               | Oral LD50   | 2,650 mg/kg    | rat     |
| 1333-86-4 | Carbon black  | Oral LD50   | > 15,400 mg/kg | rat     |
|           |               | Dermal LD50 | > 3 gm/kg      | rabbit  |



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| 8002-74-2 | Paraffin waxes and | Oral LD50 | > 2,000 mg/kg | rat |
|-----------|--------------------|-----------|---------------|-----|
|           | Hydrocarbon waxes  |           |               |     |

#### Carcinogenicity

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

| CAS-No.  | Chemical Name | OSHA | IARC | NTP |
|----------|---------------|------|------|-----|
| 100-42-5 | Styrene       | 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:**

Styrene 100-42-5 Irritating to eyes, skin, and respiratory tract with many CNS effects such as narcosis, cramps and respiratory tract paralysis.

## **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 : Adverse ecological impact is not known or expected under normal

use.

Bioaccumulation Potential : no data available

Additional advice : not applicable

## 13. DISPOSAL CONSIDERATIONS

Product : Like most thermoplastic plastics the product can be recycled. Where



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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 : Not regulated for transportation.

IMO/IMDG (maritime) : 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 : Not applicable

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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:



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National Pollutant Release Inventory (NPRI)

not applicable

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

| CAS-No.   |  |
|-----------|--|
| 1333-86-4 |  |
| 100-42-5  |  |

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 : Listed

Korea KECI : Listed

Philippines PICCS : Listed

### 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.