

# SAFETY DATA SHEET

**ID# MSDS-1704**

Issue Date: June 1, 2015

Revised Date:

Revision No.

## Section 1: Identification

**Product Identifier:** Quadrant® PPO

**Manufacturer:**

Quadrant EPP USA, Inc.  
2120 Fairmont Ave.  
Reading, PA 19605  
(610) 320-6600

In case of an emergency, please call Chemtrec 1-800-424-9300.

**Recommended Use:** Engineering thermoplastic stock shape

## Section 2: Hazard Identification

**GHS – Classifications**

**Classification:** None

**Signal Word:** None

**Pictograms and Symbols:** None

**Hazard Statements:** None

**Precautionary Statements:** None

## Section 3: Composition/Information on Ingredients

This is a polymeric material. All constituents are encapsulated within the polymer system and therefore unlikely to result in exposure under normal conditions of processing and handling.

| Chemical Name                    | CAS No.    | Weight % |
|----------------------------------|------------|----------|
| Poyphenylene Ether               | 25134-01-4 | >90      |
| Phosphoric acid, triphenyl ester | 115-86-6   | 1-5      |
| Carbon Black                     | 1333-86-6  | 0.1-1.0  |

## Section 4: First-Aid Measures

**Eyes:** Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation continues.

**Skin:** No health risks concerning skin contact at room temperature. Wash with soap and water. If molten material comes in contact with the skin, cool under running water. Do not attempt to remove the molten material from the skin. Get medical attention immediately.

**Inhalation:** If fumes from overheating are inhaled, remove to fresh air. Seek medical attention if respiratory symptoms occur or breathing becomes difficult.

**Ingestion:** Rinse the victim's mouth with plenty of water. Do not induce vomiting. Seek medical attention.

## **Section 5: Fire-Fighting Measures**

Fire-fighters should protect themselves from decomposition and combustion products by using a full-face self-contained breathing apparatus and impervious protective clothing. Extinguish fires with water spray and foam. Carbon dioxide and dry chemical media are not recommended because their lack of cooling capacity may permit re-ignition.

Hazardous gases/vapors produced in fire are: carbon oxides and Hydrocarbon fragments.

Dust is flammable and explosive when finely divided and suspended in air.

## **Section 6: Accidental Release Measures**

If a spill occurs, stop the leak at the source and sweep up for disposal. Do not flush to sewers or waterways.

## **Section 7: Handling and Storage**

### **Precautions for Safe Handling**

Personal hygiene such as washing the hands and face immediately after working with this material and before eating is recommended.

Dust may form explosive mixtures with air. Avoid dust formation and control ignition sources. Polyolefin dust particles suspended in air are combustible and may be explosive. Keep away from heat, sparks, flame, and other ignition sources. Prevent dust accumulations and dust clouds. Employ ground, bonding, venting, and explosive relief provisions in accordance with accepted engineering practices and NFPA provisions in any process capable of generating dust and/or static electricity. Explosion hazards apply only to dusts, not granular forms of this product.

The handling of powder in both loading and unloading operations, as well as fabrication, may cause dust to be formed and necessary precautions for personal protection should be used. As with all finely divided materials precautions should be taken to avoid inhalation and eye contact.

If in dust form, transfer from storage with a minimum amount of dusting. Ground all transfer, blending, and dust collecting equipment to prevent static sparks in accordance with NFPA 70 "National Electric Code." Review and comply with all relevant NFPA provisions, including but not limited to NFPA 484 and NFPA 654 related to combustible dust hazards. Remove all

ignition sources from material handling, transfer, and processing areas where dust may be present. Local exhaust ventilation should be provided in work area.

**Precautions for Safe Storage**

Store in a sprinkler protected warehouse. Since products are organic they will burn with a hot flame if ignited. Avoid contact with ignition sources such as open flames. Keep a fire extinguisher near if welding is done in the area of organic products. If a heat source is present, keep the area well ventilated.

**Section 8: Exposure Controls/Personal Protection**

| Chemical Name                       | ACGIH TLV             | OSHA PEL   | NIOSH REL             |
|-------------------------------------|-----------------------|--|-----------------------|
| Particulates                        | 10 mg/m <sup>3</sup>  | 15 mg/m <sup>3</sup> – Total<br>5 mg/m <sup>3</sup> – Respirable | Not Determined        |
| Phosphoric Acid,<br>Triphenyl Ester | 3.5 mg/m <sup>3</sup> | 3.5 mg/m <sup>3</sup>  | Not Determined        |
| Carbon Black                        | 3.5 mg/m <sup>3</sup> | 3.5 mg/m <sup>3</sup>  | 3.5 mg/m <sup>3</sup> |

**Engineering Measures:**

Provide local exhaust ventilation to keep airborne particulate concentrations below 15 mg/m<sup>3</sup>, the OSHA limit for nuisance dusts.

**Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields.

**Personal Protective Equipment: Skin**

When handling molten material, protective clothing such as long sleeves or laboratory coat should be worn. Use heat-resistant gloves, boots and face protection.

**Personal Protective Equipment: Respiratory**

If levels are above published OELs, then a NIOSH approved respirator.

Good industrial hygiene practice should be followed which includes preventing eye contact, minimizing skin contact and minimizing inhalation of dust, vapors or mist.

**Section 9: Physical and Chemical Properties**

|                                     |   |
|-------------------------------------|---|
| Appearance and Odor                 | Solid in rod, plate or bushing form with no odor  |
| Odor Threshold                      | No Information Available  |
| Specific Gravity (Relative Density) | >1  |
| Solubility in Water                 | Insoluble   |
| VOC Content (%)                     | Negligible  |
| pH                                  | No data available   |
| Melting Point/Freezing Point        | This product does not exhibit a sharp melting point, but softens gradually over a wide temperature range. |
| Vapor Pressure                      | No data available   |
| Vapor Density                       | No data available   |
| Evaporation Rate                    | No data available   |
| Boiling Point                       | No data available   |

Flammability  
Flash Point  
Explosion Data

Auto ignition Point  
Partition Coefficient: n-octanol/water  
Decomposition Temperature  
Viscosity

Combustible  
No data available  
LEL – No data available  
UEL – No data available  
914°F (Estimated)  
No data available  
No data available  
No data available

## Section 10: Stability and Reactivity

### Reactivity:

None known

### Chemical Stability:

Material is stable under normal industrial conditions and is not susceptible to hazardous polymerization.

### Conditions to Avoid:

To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous.

### Incompatibility:

None known

### Hazardous Decomposition Products:

At elevated temperatures trace levels of alkylphenols, aldehydes and alcohols, aliphatic amines, dimethylcyclohexanone, trimethylanisole, dihydrobenzofuran, styrene, 4-vinylcyclohexene, phenols, triarylphosphate esters, cyclopentanone, carbon dioxide, carbon monoxide will occur.

## Section 11: Toxicological Information

**Signs and Symptoms of Overexposure:** Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision. Skin irritation signs and symptoms may include a burning sensation, redness and swelling. Respiratory irritation signs and symptoms may include a temporary burning sensation of the nose and throat, coughing, and/or difficulty breathing.

**Aggravated Medical:** None.

**Acute Effects:** Non-toxic.

**Skin Corrosion/Irritation:** Not irritating to the skin.

**Serious Eye Damage/Irritation:** Particulates can be mechanically irritating to the eyes.

**Ingestion:** None.

**Inhalation:** Inhalation of particulates may produce respiratory tract irritation.

**Respiratory or Skin Sensitization:** Not expected to be a sensitizer.

### Subchronic Effects:

No data available

**Chronic Effects:**

**Germ Cell Mutagenicity:** Not expected to be a germ cell mutagen.

**Carcinogenicity:** Not classifiable as carcinogen to humans (group 3 IARC). OSHA, IARC and/or NTP have listed carbon black as a carcinogen. This colorant is essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

**Reproductive Toxicity:** There aren't known reproductive toxicity effects.

**STOT-single Exposure:** At dust form, may cause respiratory irritation with cough and sneezing.

**STOT –multiple Exposure:** There aren't known repeated exposure effects.

**Aspiration Hazard:** No data available. Not expected to be an aspiration hazard.

**Primary Route of Entry:** Inhalation of particulates.

**Section 12: Ecological Information**

**Ecotoxicity:**

There aren't known ecological toxicity values.

**Persistence and degradability:**

It's expected high persistence and slow degradability.

**Bioaccumulative Potential:**

It's expected moderate to high bioaccumulative potential.

**Mobility in Soil:**

No data available

**Other Adverse Effects:**

No data available

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|---------------|-------------------|------------------|----------|----------------------------|
|               |                   |                  |          |                            |

**Section 13: Disposal Considerations**

Dispose of in accordance with federal, state and local regulations.

**Section 14: Transportation Information**

US Department of Transportation Classification (49CFR)

Not classified as hazardous for transport.

## Section 15: Regulatory Information

SARA Section 302 & 304:  
No chemicals

SARA Section 313:  
The following component is subject to reporting levels established by SARA Title III, Section 313:

- None

TSCA:  
All components of this product are either listed or are exempt on the TSCA inventory.

## Section 16: Other Information

### Label Information

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**Precautionary Statements:** None

| Revision Date | Reason for Revision |
|---------------|---------------------|
| June 1, 2015  | SDS format          |

The information set forth herein has been gathered from standard reference materials and/or supplier test data and is, to the best knowledge and belief of Quadrant EPP, accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones that exist. Quadrant EPP makes no warranties, expressed or implied, with respect to the use of such information or the use of the specific material identified herein in combination with any other material or process, and assumes no responsibility therefor.