QUADRANT ENGINEERING PLASTIC PRODUCTS

# MATERIAL SAFETY DATA SHEET

Date last revised 10/09/2007 By M. Lykins

MSDS-17c

## I. General Information

| | |
|---|---|
| Chemical Name & Synonyms<br>High Density Polyethylene | Trade Name & Synonyms<br>Borated High Density Polyethylene (Borotron) |
| Chemical Family<br>Linear High Density Polyethylene | Formula<br>(ch2-ch2)n |
| Proper DOT Shipping Name<br>N/A | DOT Hazard Classification<br>N/A |
| Manufacturer<br>Quadrant EPP, USA Inc. | Manufacturer's Phone Number<br>(260) 479-4274 |
| Manufacturer's Address<br>2120 Fairmont Ave., Reading, PA 19605 | Chemtrec Phone Number<br>1-800-424-9300 |

## II. Ingredients

| Principal Components | Percent | Threshold Limit Value (Units) |
|---|---|---|
| Polyethylene (CAS 9002-88-4) | >90% | 10 mg/m3 (total dust) |
| Boric Oxide (CAS 1303-86-2) | <25 % | 3.5 mg/m3 (respirable dust) |
| | | |
| | | |
| | | |
| | | |

## III. Physical Data

| | |
|---|---|
| Boiling Point (Deg. F.)<br>N/A | Specific Gravity (H20=1)<br>1.11-1.13 |
| Vapor Pressure (mm Hg)<br>N/A | Percent Volatile By Volume (%) |
| Vapor Density (Air=1)<br>N/A | Evaporation Rate ( Air =1)<br>N/A |
| Solubility in Water<br>Negligible | pH<br>N/A |
| Appearance & Odor<br>Waxy Solid, green color | |

## IV. Fire & Explosion Hazard Data

| | | |
|---|---|---|
| Flash Point (Test Method)<br>700 Deg. F. (370 Deg. C.) ASTM-D-1929 Method B (Setchkin) | | Auto Ignition Temperature<br>370°C (700 Deg. F.) |
| Flammable Limits<br>N/A | LEL<br>N/A | UEL<br>N/A |

Extinguishing Media

Water, Foam, Carbon Dioxide, Dry Chemical, Synthetic Foams, Alcohol Resistant Foams

Special Fire Fighting Procedures: Soak thoroughly with water to cool and prevent re-ignition. The moke can contain polymer fragments of varying composition, in addition to unidentified toxic and/or irritating compounds.

Unusual Fire & Explosion Hazards

Combustion by-products include, but are not limited to, carbon dioxide and carbon monoxide...

## V. Health Hazard Data

| OSHA Permissible Exposure Limit | ACGIH Threshold Limit Value |
|---|---|
| 15 mg/m3 Total dust, 5 mg/m3 respirable dust | 10 mg/m3(total dust) |
| Carcinogen - NTP Program | Carcinogen - IARC Program |
| NO | NO |

Symptoms of Exposure

None Known

Medical Conditions Aggravated By Exposure

None known, however, seek medical attention if constant irritation occurs. If thermal decomposition occurs, upper respiratory, eye, nose, and throat irritation may result.

Primary Route(s) of Entry

Inhalation of particulates.

Emergency First Aid

Molten material. 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.

## VI. Reactivity Data

| | |
|---|---|
| STABILITY ____ Unstable | Conditions To Avoid |
| _X_ Stable | None Known |
| INCOMPATABILITY | Materials To Avoid |
| Hazardous ___ May Occur | Strong oxidizing agents. |
| Polymerization _X_ Will Not Occur | Conditions To Avoid |
| | None Known |

Hazardous Decomposition Products

Primarily Carbon Monoxide, Carbon Dioxide. Trace Alkanes and Aldehydes in low oxygen environments.

## VII. Environmental Protection Procedures

Spill Response...Sweep up for Disposal or reuse.

Waste Disposal Method....Incineration or landfill - dispose of in accordance with Federal, State and Local regulations.

## VII. Special Protection Information

| Eye Protection | Skin Protection |
|---|---|
| Glasses with side shields in dusty conditions. | Normally not needed. |

Respiratory Protection (Specific Type) - NIOSH approved dust respirator recommended. If material is being burned wear an organic respirator.

Ventilation Recommended - Local ventilation in dusty conditions, or if thermal decomposition occurs.

Other Protection

Gloves and protective garments when handling molten material.

## IX. Special Precautions

Hygienic Practices In Handling & Storage

Wash with soap and water.

Precautions For Repair & Maintenance Of Contaminated Equipment

Eliminate ignition sources.

Other Precautions

Store in a sprinkler protected warehouse. Since Boratron is a polyethylene, it 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 High Density Polyethylene. If a heat source is present, keep the area well ventilated.

NFPA Code: Fire 1, Health 1, Reactivity 0

HMIS Code: Fire 1, Health 0, Reactivity 0

## X. Regulatory Information

OSHA Status: Polyethylene and Boric Oxide are not considered hazardous under OSHA'.

TSCA Inventory Status: All ingredients are listed.

CERCLA Reportable Quantity (RQ): None

SARA Title III

Section 302/304: No extremely hazardous substances

Section 311/312: No reporting requirements. However, it is suggested that storage of >10,000 lbs of Polyethylene in one facility should be listed on a Tier II report.

Section 313: No reporting requirements.

N.A.= Not Applicable N.E.= Not Established

Hazard data contained was obtained form raw material suppliers. The information presented is believed to be factual since it was derived from the works and opinions of persons believed to be qualified. However, no facts contained in the information are to be taken as a warranty or representation for which Quadrant EPP USA, Inc bears legal responsibility. The user should review and recommendation in the specific context of the intended use to determine if they are appropriate.