

MATERIAL SAFETY DATA SHEET

Date last revised 02/04/2009 By M. Lykins

MSDS-17c

I. General Information

Chemical Name & Synonyms High Density Polyethylene	Trade Name & Synonyms Borated High Density Polyethylene (Borotron)
Chemical Family Linear High Density Polyethylene	Formula (ch ₂ -ch ₂) _n
Proper DOT Shipping Name N/A	DOT Hazard Classification N/A
Manufacturer Quadrant EPP, USA Inc.	Manufacturer's Phone Number (260) 479-4274
Manufacturer's Address 2120 Fairmont Ave., Reading, PA 19605	Chemtrec Phone Number 1-800-424-9300

II. Ingredients

Principal Components	Percent	Threshold Limit Value (Units)
Polyethylene (CAS 9002-88-4)	>90%	10 mg/m ³ (total dust)
Boric Oxide (CAS 1303-86-2)	<25 %	3.5 mg/m ³ (respirable dust)

III. Physical Data

Boiling Point (Deg. F.) N/A	Specific Gravity (H ₂ O=1) 1.11-1.13
Vapor Pressure (mm Hg) N/A	Percent Volatile By Volume (%)
Vapor Density (Air=1) N/A	Evaporation Rate (Air =1) N/A
Solubility in Water Negligible	pH N/A
Appearance & Odor Waxy Solid, green color	

IV. Hazard identification/Fire & Explosion Hazard Data

Flash Point (Test Method) Deg. F. (370 Deg. C.) ASTM-D-1929 Method B (Setchkin)	Auto Ignition Temperature 370°C (700 Deg. F.)	700
Flammable Limits	LEL	UEL
N/A	N/A	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 smoke can contain polymer fragments of varying composition, in addition to unidentified toxic and/or irritating compounds.		
Unusual Fire & Explosion Hazards: Special conditions to avoid		
Dust is flammable and explosive when finely divided and suspended in air		

V. Health Hazard Data

Physical health Hazards:

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 grounding, 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. See also Special Precautions section below.

Carcinogen - NTP Program

NO

Carcinogen - IARC Program

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

Stable

INCOMPATIBILITY

Hazardous May Occur

Polymerization Will Not Occur

Conditions To Avoid

None Known

Materials To Avoid

Strong oxidizing agents.

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.

VIII. Special Protection Information

Eye Protection

Glasses with side shields in dusty conditions.

Skin Protection

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.

Handling: 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 (See Section VIII) should be used. As with all finely divided materials, precautions should be taken to avoid inhalation and eye contact. .

IX. Special Precautions

Hygienic Practices In Handling & Storage

Wash with soap and water.

Precautions For Repair & Maintenance Of Contaminated Equipment

Eliminate ignition sources.

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.

Other Precautions

Store in a sprinkler protected warehouse. Since Borotron 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.

XI. Warning Labels

CAUTION: Please consult the product MSDS sheet for important information.

NFPA Code: Fire 1, Health 1, Reactivity 0

HMIS Code: Fire 1, Health 0, Reactivity 0

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

Hazard data contained was obtained from 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.