

**MATERIAL SAFETY DATA SHEET**

**SECTION 1 – PRODUCT AND COMPANY INFORMATION**

**PRODUCT IDENTIFIER:** Cellulose Insulation, Ag Building, All Borate Loose Fill Low Dust  
**PRODUCT NAME:** IQ Fibers Ag Building, All Borate Loose Fill Low Dust – 25 lbs  
**MANUFACTURER:** IQ Fibers  
 1550 Lehigh Drive, Bldg. 4, Easton, PA 18042, USA  
**Emergency Telephone Number: 610-438-3101**

**SECTION 2 – COMPOSITION AND INGREDIENT INFORMATION**

COMPONENT/CAS #	% BY WEIGHT	EXPOSURE LIMITS	CANCER DESIGNATION
<b>Newsprint (Cellulose Fiber) #65996-61-4</b>	Not less than 87%	PEL-TWA=15mg/m <sup>3</sup> total dust (PNOC) PEL-TWA=15mg/m <sup>3</sup> respirable fraction TLV-TWA=10mg/m <sup>3</sup> inhalable, no asbestos and quartz <1% (PNOC) TLV-TWA=3mg/m <sup>3</sup> respirable, no asbestos and quartz <1% (PNOC)	None
<b>Boric Acid H<sub>3</sub>BO<sub>3</sub> #10043-35-3</b>	Not more than 13%	Same	None
<b>Distillate Mineral Oil #8042-47-5</b>	Not more than 2%	Same	None

Boric acid is classified as hazardous under the OSHA Hazard Communication Standard based on animal chronic toxicity studies. Refer to Section 3 and 11 for details on hazards.

HMIS Rating		National Fire Protection Association (NFPA)	
Health	1	Red (Flammability)	0
Flammability	1	Yellow (Reactivity)	0
Reactivity	0	Blue (Acute Health)	1*
Personal Protection	E	*Chronic Effects	

**SECTION 3 – HAZARD IDENTIFICATION**

**EMERGENCY OVERVIEW**

**Avoid extreme heat and open flame. May emit carbon monoxide gas and boric acid and other hazardous particulates during thermal decomposition.** This product is a finely divided, light gray material with no perceptible odor. It presents no unusual hazard if involved in a fire.

Physical Characteristics	
<b>Boiling Point (F)</b>	Not applicable
<b>Vapor Pressure (mm Hg)</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Solubility in Water</b>	Insoluble; dispersible
<b>Specific Gravity (H<sub>2</sub>O=1)</b>	Not applicable
<b>Reactivity in Water</b>	None
<b>Melting Point</b>	Not applicable

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<b>Potential Health Effects</b>	
<b>Inhalation</b>	Slightly irritating to upper respiratory system. Persons with respiratory problems should avoid breathing dust.
<b>Eyes</b>	Slight irritant. In case of eye contact, flush with water.
<b>Ingestion</b>	Small amounts are not likely to cause harm. Ingestion of large amounts may cause rash, diarrhea, nausea.
<b>Skin</b>	Does not normally irritate skin. In case of broken skin, wear gloves and wash dust from skin with soap and plenty of water. Large amounts absorbed into bloodstream may cause rash, skin peeling, diarrhea, nausea, dizziness.
<b>Acute</b>	None
<b>Chronic</b>	None
<b>Cancer</b>	Neither the end product nor any of its components.

### SECTION 4 – FIRST AID

<b>Eyes</b>	For dust exposure, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
<b>Skin</b>	If skin is exposed, wash with soap and large amounts of water. If irritation persists, seek medical attention.
<b>Inhalation</b>	If irritation or difficulty in breathing occurs, remove to fresh air. Seek medical attention if condition persists.
<b>Ingestion</b>	Symptoms may include diarrhea, nausea and vomiting. Seek medical attention if material was ingested and symptoms occur.
<b>Note to Physicians</b>	Exposure to dust may aggravate symptoms of persons with pre-existing respiratory tract conditions and may cause skin and gastrointestinal symptoms.

### SECTION 5 – FIRE FIGHTING MEASURES

<b>Flash Point (Method Used)</b>	Not Applicable
<b>Combustible</b>	Material may decompose on contact with extreme temperatures and open flames.
<b>Flammable Limits</b>	LEL: Not Applicable      UEL: Not Applicable
<b>Autoignition Temperature</b>	Not determined
<b>Explosion Hazard</b>	None expected for product based on particle size. Note: Airborne concentrations of combustible dust, when combined with an ignition source, can create an explosion hazard if the dust concentration exceeds 15mg/m <sup>3</sup> .
<b>Extinguishing Media</b>	Water, dry chemical and other agents rated for a wood fire (Type A fire). Use Type A rated extinguisher.
<b>Fire Fighting Instructions</b>	Evacuate the area and notify the fire department. If possible, isolate the fire by moving other combustible materials. If the fire is small, use a hose-line or extinguisher rated for a Type A fire. If possible, dike and collect water used to fight fires. Fire-fighters should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

Contains water-soluble inorganic mineral salts which may damage trees or vegetation exposed to large quantities. **Land:** shovel, sweep or vacuum product. Place in disposal container. Avoid bodies of water. **Water:** large quantities may cause localized contamination of surrounding waters depending on the quantity spilled. At high concentrations may damage localized vegetation, fish and other aquatic life. This product is a non-hazardous waste when spilled or disposed of as defined in the Resources Conservation and Recovery Act (RCRA) regulations (40 CFR 261). Refer to regulatory information in Section 15 for additional information regarding EPA and California regulations.

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### SECTION 7 – HANDLING AND STORAGE

<b>General</b>	No special handling is required. Storage of sealed bags in a dry, indoor location is recommended. To maintain product integrity, handle on a “first-in, first-out” basis. Use good housekeeping and engineering controls so that dust levels are below the exposure limits listed in Section 2.
<b>Storage Temperature</b>	Ambient
<b>Storage Pressure</b>	Atmospheric
<b>Special Sensitivity</b>	None

### SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

<b>General Exposure Controls</b>	No specific controls are needed. Use standards good housekeeping practices and engineering controls to minimize nuisance levels.
<b>Respiratory Protection</b>	If housekeeping and engineering controls do not maintain nuisance levels below regulatory limits or dust concentration is unknown, use a NIOSH-approved mask.
<b>Eye Protection</b>	Wear ANSI-approved eye protection if environment is excessively dusty.
<b>Hand Protection</b>	If skin is broken or sensitive, use gloves.
<b>Other Protective Clothing</b>	None
<b>Ventilation</b>	Normal and adequate ventilation
<b>Work/Hygienic Practices</b>	Standard hygienic practices
<b>Occupational Exposure Limits</b>	<i>This product is listed/regulated by OSHA, Cal/OSHA and ACGIH as “Particulates Not Otherwise Classified” or “Nuisance Dust.”</i>

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Gray, odorless fiber	<b>Boiling/Melting Point</b>	Not applicable
<b>Bulk Density</b>	9 lb/ft <sup>3</sup> compressed	<b>Flash Point</b>	Not applicable
<b>Vapor Pressure</b>	Negligible @ 20° C	<b>pH</b>	<8.2 (2.0% suspension @ 25° C)
<b>Solubility in Water</b>	Product is not soluble	<b>Viscosity</b>	Not applicable

### SECTION 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** Will not occur

**Conditions and Materials to Avoid:** Reaction with strong reducing agents such as metal hydrides or alkali metals will generate hydrogen gas which could create explosive hazard. Keep away from strong oxidizers, such as concentrated nitric acid, hydrogen peroxide and chlorine.

### SECTION 11 – TOXICOLOGICAL INFORMATION

BORIC ACID	
<b>Eye</b>	None listed, is expected to be an eye irritant
<b>Skin</b>	Mild irritation on Standard Draize Test, LDLo, skin, human, 1200 mg/kg
<b>Ingestion</b>	LDLo, oral, human, 429 mg/kg. LD40, oral, rat, 2600 mg/kg

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<b>Inhalation</b>	LCLo, inhalation, rat, 28 mg/m <sup>3</sup> /4H
<b>Sub chronic</b>	TDLo, oral, rat, 45 gm/kg/90D-C
<b>Chronic</b>	TDLo, oral, rat, 244 gm/kg/2Y-C
<b>Teratology</b>	None reported
<b>Reproduction</b>	TDLo, oral, rat, 6600 mg/kg, specific developmental abnormalities – musculoskeletal system
<b>Mutagenicity</b>	Mutation in microorganisms, Escherichia Coli, 17000 ppm/24H.

<b>DISTILLATE MINERAL OIL</b>	
<b>Physical State</b>	Colorless, Odorless Liquid
<b>Boiling Point</b>	N/A
<b>Specific Gravity</b>	0.81 + or – .0500
<b>Flash Point</b>	>175° C
<b>Viscosity @ 40° C</b>	<12.38 cps

### SECTION 12 – ECOLOGICAL INFORMATION

<b>BORIC ACID</b>	
<b>Ecotoxicity</b>	LC50, Daphnia magna, 133 mg/l/48H, RfD, oral, human, 0.09 mg/kg/day, testicular atrophy, spermatogenic arrest. LC50, Trout, 100 ppm
<b>Chemical Fate Information</b>	Boron is absorbed into clay particles, with the maximum absorption in the pH range of 7-9. The amount of boron absorbed depends on the surface area of the clay.

### SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose as a non-hazardous waste.

### SECTION 14 – TRANSPORT INFORMATION

May be shipped normally as a non-hazardous material.

### SECTION 15 – REGULATORY INFORMATION

**Superfund:** CERCLA/SARA. This product is not listed under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or its 1986 amendments, the Superfund Amendments and Reauthorization Act (SARA), including substances listed under Section 313 of SARA, Toxic Chemicals, 42 USC 11023, 40 CFR 372.65; Section 302 of SARA Extremely Hazardous Substances, 42 USC 11002, 40 CFR 355; or the CERCLA Hazardous Substances list, 42 USC 9604, 40 CFR 302.

**RCRA:** This product is not listed as a hazardous waste under any sections of the Resource Conservation and Recovery Act or regulations (40 CFR 261 et seq.).

**Safe Drinking Water Act:** This product is not regulated under the SDWA, 42 USC 300g-1, 40 CFR 141 et seq. Consult state and local regulations for possible water quality advisories regarding boron and ammonia.

**California Proposition 65:** This product is not listed on any Proposition 65 lists of carcinogens or reproductive toxicants.

**OSHA Carcinogen:** Not listed.

**Clean Water Act (Federal Water Pollution Control Act):** 33 USC 1251 at seq.: This product is not itself a discharge covered by any water quality criteria of Section 304 of the CWA, 33 USC 1314. This product is not on the Section 307 List of Priority Pollutants, 33 USC 1317, 40 CFR 116. This product is not on the Section 311 List of Hazardous Substances, 33 USC 1321, 40 CFR 116.

**TSCA No.:** This product does not appear on the EPA TSCA inventory list. Ammonium sulfate and boric acid appear on the EPA TSCA inventory list under the CAS Nos. 7783-20-2 and 10043-35-3 respectively.

**OSHA/Cal/OSHA:** This MSDS document meets the requirements of both OSHA and Cal/OSHA hazard communication standards. Refer to Section 8 for regulatory exposure limits.

**IARC:** The International Agency for Research on Cancer (of the World Health Organization) does not list or categorize this product as a carcinogen.

**NTP Annual Report on Carcinogens:** Not listed.

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### SECTION 16 – OTHER INFORMATION

INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED DEPENDABLE AND IS ACCURATE AND RELIABLE TO THE BEST OF OUR KNOWLEDGE AND BELIEF BUT IS NOT GUARANTEED TO BE SO. NOTHING HEREIN IS TO BE CONSTRUED AS RECOMMENDING ANY PRACTICE OR ANY PRODUCT IN VIOLATION OF ANY PATENT OR IN VIOLATION OF ANY LAW OR REGULATION. THE USER IS RESPONSIBLE TO DETERMINE THE SUITABILITY OF ANY MATERIAL FOR A SPECIFIC PURPOSE AND ADOPT NECESSARY SAFETY PRECAUTIONS. WE MAKE NO WARRANTY AS TO RESULTS TO BE OBTAINED IN USING ANY MATERIAL AND, SINCE CONDITIONS OR USE ARE NOT UNDER OUR CONTROL, WE MUST NECESSARILY DISCLAIM ALL LIABILITY WITH RESPECT TO USE OF ANY MATERIAL SUPPLIED BY US.

#### ABBREVIATIONS

<b>CAS</b>	Chemical Abstract Services (identifies specific chemical)	<b>OSHA</b>	Occupational Safety and Health Administration
<b>mg/m<sup>3</sup></b>	Milligrams per cubic meter	<b>PNOC</b>	Particulates Not Otherwise Classified
<b>LCLo</b>	Lethal concentration low	<b>PEL</b>	OSHA Permissible Exposure Limit
<b>LDLo</b>	Lethal dose low	<b>ppm</b>	Parts per million
<b>LC50</b>	Lethal concentration 50%	<b>RfD</b>	Reference Dose
<b>LD50</b>	Lethal dose 50%	<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>LOAEL</b>	Lowest Observed Adverse Effect Level	<b>TDL<sub>o</sub></b>	Toxic dose low
<b>mg/l/h</b>	Milligrams per liter per hour	<b>TLV</b>	AC GIH Threshold Limit Value
<b>mg/kg</b>	Milligrams per kilogram	<b>TWA</b>	8-hour Time Weighted Average exposure
<b>mg/m<sup>3</sup></b>	Milligrams per cubic meter		

#### BIBLIOGRAPHY

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