

# MATERIAL SAFETY DATA SHEET

## PRODUCT NAME: TURBO-LINER EBF Part-A

### SECTION I - MANUFACTURER IDENTIFICATION

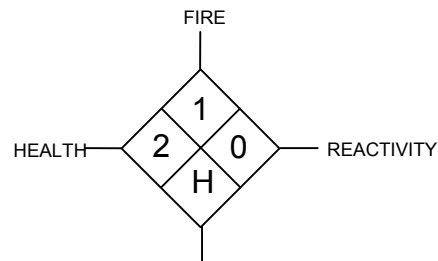
MANUFACTURER'S NAME: Turbo Products, Inc.

ADDRESS: 1 West Cameron, Kellogg, ID 83837

INFORMATION PHONE: (877) 678-8726

EMERGENCY CONTACT: (CHEMTREC): 800-424-9300

DATE REVISED: OCTOBER 2001



PERSONAL PROTECTION (SECTION VIII)

**HMIS HAZARD RATING**  
LEAST ----- 0 SLIGHT ---- 1  
MODERATE --- 2 HIGH ----- 3  
EXTREME ---- 4

### SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

| HAZARDOUS COMPONENTS | OCCUPATIONAL EXPOSURE LIMITS |          |           |         | VAPOR PRESSURE |           |
|----------------------|------------------------------|----------|-----------|---------|----------------|-----------|
|                      | CAS NUMBER                   | OSHA PEL | ACGIH TLV | MFG TLV | mm             | Hg @ TEMP |
| BISPHENOL-A RESIN    | 25068-38-6                   | N/E      | N/E       |         |                |           |
| GLYCIDYL ETHER       | 120547-52-6                  | N/E      | N/E       |         |                |           |

\* No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A

SPECIFIC GRAVITY: (H<sub>2</sub>O=1): 1.10

COATING V.O.C.: N/A

VAPOR DENSITY: Heavier than air

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: Slight

APPEARANCE AND ODOR: Thin blue liquid, mild odor

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >93°C (200°F)

METHOD USED: PMCC

FLAMMABLE LIMITS IN AIR BY VOLUME: Lower: N/E

Upper: N/E

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water fog.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required. Excessive pressure or temperature may cause explosive rupture of containers.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Closed containers may rupture due to very high temperature or induced pressure.

### SECTION V - REACTIVITY DATA

**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Heat, high temperature and open flame. Contact with incompatible materials in a closed system will cause buildup of pressure.

**INCOMPATIBILITY (MATERIALS TO AVOID):** This product will react with materials such as amines, alkalis and acids. Avoid strong oxidizing agents. Some reactions can be violent.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Organic vapors and other thermal decomposition products.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## SECTION VI - HEALTH HAZARD DATA

**SKIN CONTACT:** Frequent and prolonged contact can cause irritation and/or dermatitis.

**EYE CONTACT:** Can be moderately irritating to the eyes.

**SKIN ABSORPTION:** Systemically toxic concentrations of this product will probably not be absorbed through human skin.

**INGESTION:** Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion.

**INHALATION:** Vapors can irritate eyes, nose and respiratory passages. Overexposure may induce headaches, dizziness, drowsiness or unconsciousness. Chronic exposures may result in permanent decreases in lung function.

**HEALTH HAZARDS: ACUTE:** Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. **CHRONIC:** Repeated exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

**CARCINOGENICITY:** NTP: No

IARC Monographs: No

OSHA Regulated: No

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Cardiovascular disease, asthma or asthmatic bronchitis, allergic disease, chronic respiratory disease, sinusitis, headache and dizziness.

**EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT:** Immediately flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel. **INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel. **SKIN CONTACT:** Wash material off the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse. **INGESTION:** Give 1 or 2 glasses of water and induce vomiting. Keep victim's head below hips while vomiting to prevent aspiration of liquid into the lungs. Get medical attention. Never give anything by mouth to an unconscious person.

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear skin, eye, and respiratory protection during cleanup. Soak up material with absorbent and shovel into a chemical waste container. Cover container, but do not seal, and remove from work area. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

**WASTE DISPOSAL METHOD:** Residues may still be subject to RCRA storage and disposal requirements. Dispose off in compliance with all relevant local, state, and federal laws and regulations regarding treatment.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. The material is combustible; the combustion products may be hazardous. Do not expose this material to open flames.

**OTHER PRECAUTIONS:** Prevent skin and eye contact, observe TLV limitations. Avoid breathing vapors. Workers should shower and change to fresh clothing after each shift. Individuals with existing respiratory disease such as chronic bronchitis, emphysema, or asthma should not be exposed. These individuals should be identified through baseline and annual evaluation and removed from further exposure. Medical examination should include medical history, vital capacity, and forced expiratory volume at one second.

## SECTION VIII - CONTROL MEASURES

**VENTILATION:** Use local exhaust ventilation to keep airborne concentrations below the TLV. Follow guidelines in the ACGIH publication "Industrial Ventilation". Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

**RESPIRATORY PROTECTION:** Avoid breathing vapor or mists. If exposure may or does exceed occupational exposure limits (Sec. II). Use a NIOSH approved respirator to prevent overexposure. In accordance with 29 CFR 19010.134. Use either an atmosphere supplying respirator or an air-purifying respirator for organic vapors.

**PROTECTIVE CLOTHING:** Gloves determined to be impervious under the conditions of use should be worn always when working with this product. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash

contaminated clothing before wearing. Clothing constructed of butyl rubber, viton, silver shield, Saranex coated Tyvak, as well as some nitrile rubber and polyvinyl alcohol (PVA) coated garments have demonstrated excellent resistance to permeation. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

**EYE PROTECTION:** Chemical tight goggles and full-face shield.

**OTHER PROTECTIVE EQUIPMENT AND MEASURES:** Unhindered access to safety shower and eye wash stations. As a general hygienic practice, wash hands and face after use. Showers and cleaning of clothes are recommended.

## **SECTION IX - REGULATORY INFORMATION**

**DOT PROPER SHIPPING NAME:** Not regulated.

**STATE REGULATIONS: CALIFORNIA** - As per requirements of the Safe Drinking Water & Toxic Enforcement Act of CA, USA 1985 (Proposition 65), the public is warned that materials used in this product may create an exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. This warning required by Section 25249.6 of the California Health and Safety Code.

**TOXIC SUBSTANCE CONTROL ACT:** All chemicals comprising this product are listed on the TSCA inventory.

**USER'S RESPONSIBILITY:** A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

**DISCLAIMER:** The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

# MATERIAL SAFETY DATA SHEET

## PRODUCT NAME:TUROB-LINER EBF Part-B

### SECTION I - MANUFACTURER IDENTIFICATION

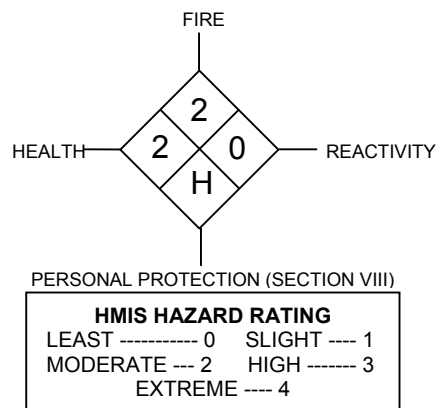
MANUFACTURER'S NAME: Turbo Products, Inc.

ADDRESS: 1 West Cameron, Kellogg, ID 83837

INFORMATION PHONE: (877) 678-8726

EMERGENCY CONTACT: (CHEMTREC): 800-424-9300

DATE REVISED: OCTOBER 2001



### SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

| HAZARDOUS COMPONENTS       | OCCUPATIONAL EXPOSURE LIMITS |                                         |                                         |         | VAPOR PRESSURE |           |
|----------------------------|------------------------------|-----------------------------------------|-----------------------------------------|---------|----------------|-----------|
|                            | CAS NUMBER                   | OSHA PEL                                | ACGIH TLV                               | MFG TLV | mm             | Hg @ TEMP |
| BENZYL ALCOHOL             | 100-51-6                     | N/E                                     | N/E                                     |         |                |           |
| BENZENE 1,3-DIMETHANEAMINE | 1477-55-0                    | 0.1 mg/m <sup>3</sup><br>Ceiling (Skin) | 0.1 mg/m <sup>3</sup><br>Ceiling (Skin) |         |                |           |

\* No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 190°C (375°F)

SPECIFIC GRAVITY: (H<sub>2</sub>O=1): 1.04

COATING V.O.C.: N/A

VAPOR DENSITY: Heavier than air

EVAPORATION RATE: Slower than ether

SOLUBILITY IN WATER: Slightly soluble

APPEARANCE AND ODOR: Amber liquid, aromatic

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >150°C (>300°F)

METHOD USED: PMCC

FLAMMABLE LIMITS IN AIR BY VOLUME: Lower: N/E

Upper: N/E

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water spray.

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture due to very high temperature or induced pressure.

### SECTION V - REACTIVITY DATA

STABILITY: Stable under normal conditions in closed containers.

CONDITIONS TO AVOID: Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause buildup of pressure.

INCOMPATIBILITY (MATERIALS TO AVOID): This product will react with epoxies, isocyanates, and strong oxidizing agents. Some reactions can be violent.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Organic vapors and other thermal decomposition products.

HAZARDOUS POLYMERIZATION: Will not occur.

## SECTION VI - HEALTH HAZARD DATA

**SKIN CONTACT:** Can be corrosive to skin. Severe skin irritant. May cause skin sensitization.

**EYE CONTACT:** Can be corrosive to eyes. Severe eye irritant. Burns of the eye may cause blindness. Any level of contact should not be left untreated.

**SKIN ABSORPTION:** Systemically toxic concentrations of this product will probably not be absorbed through human skin. May cause nausea, headache, and general discomfort.

**INGESTION:** Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion, and injury may be severe leading to death unless treated promptly.

**INHALATION:** Vapors can irritate eyes, nose and respiratory passages. Over exposure may induce headaches, dizziness, drowsiness or unconsciousness may severely damage contacted tissue and produce scarring. Chronic exposures may result in permanent decreases in lung function.

**HEALTH HAZARDS: ACUTE:** Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. **CHRONIC:** Repeated skin exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

**CARCINOGENICITY:** NTP: No

IARC Monographs: No

OSHA Regulated: No

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Cardiovascular disease, asthma or asthmatic bronchitis, allergic disease, chronic respiratory disease, skin disorders, allergies, sinusitis, headache, dizziness.

**EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT:** Immediately flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel. **INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel. **SKIN CONTACT:** Wash material off the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse. **INGESTION:** Do not induce vomiting. Give 3 or 4 glasses of water to drink and refer person to medical personnel. Never give anything by mouth to an unconscious person.

## SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear skin, eye, and respiratory protection during cleanup. Soak up material with absorbent and shovel into a chemical waste container. Cover container, but do not seal, and remove from work area. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

**WASTE DISPOSAL METHOD:** Residues may still be subject to RCRA storage and disposal requirements. Dispose off in compliance with all relevant local, state, and federal laws and regulations regarding treatment.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. The material is combustible; the combustion products may be hazardous. Do not expose this material to open flames, spark or other sources of ignition.

**OTHER PRECAUTIONS:** Prevent skin and eye contact. Observe TLV limitations. Avoid breathing vapors. Workers should shower and change to fresh clothing after each shift. Individuals with existing respiratory disease such as chronic bronchitis, emphysema or asthma should not be exposed. These individuals should be identified through baseline and annual evaluation and removed from further exposure. Medical examination should include medical history, vital capacity, and forced expiratory volume at one second.

## SECTION VIII - CONTROL MEASURES

**VENTILATION:** Use local exhaust ventilation to keep airborne concentrations below the TLV. Follow guidelines in the ACGIH publication "Industrial Ventilation". Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

**RESPIRATORY PROTECTION:** In poorly ventilated areas, a cartridge mask NIOSH approved for organic vapors is recommended under the following conditions: emergency situations, when product vapor concentration is greater than 20 ppm for a period longer than 15 min., During repair and cleaning of equipment, during transfer or discharge of the product.

**PROTECTIVE CLOTHING:** Gloves determined to be impervious under the conditions of use should be worn always when working with this product. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash contaminated clothing before wearing. Clothing constructed of butyl rubber, viton, silver shield, Sarancex coated Tyvak, as well as some nitrile rubber and polyvinyl alcohol (PVA) coated garments have demonstrated excellent resistance to permeation. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

**EYE PROTECTION:** Chemical tight goggles and full-face shield.

**OTHER PROTECTIVE EQUIPMENT AND MEASURES:** Unhindered access to safety shower and eye wash stations. As a general hygienic practice, wash hands and face after showers and cleaning of clothes are recommended.

|                                            |
|--------------------------------------------|
| <b>SECTION IX - REGULATORY INFORMATION</b> |
|--------------------------------------------|

**DOT PROPER SHIPPING NAME:** Not regulated.

**STATE REGULATIONS: CALIFORNIA** - As per requirements of the Safe Drinking Water & Toxic Enforcement Act of CA, USA 1985 (Proposition 65), the public is warned that materials used in this product may create an exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. This warning required by Section 25249.6 of the California Health and Safety Code.

**TOXIC SUBSTANCE CONTROL ACT:** All chemicals comprising this product are listed on the TSCA inventory.

**USER'S RESPONSIBILITY:** A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

**DISCLAIMER:** The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.