

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b> Tuffbond® 3661B	<b>Product Type:</b> Epoxy Hardener
<b>Company :</b> Hernon Manufacturing, Inc. 121 Tech Drive Sanford, FL 32771	<b>Contact Information:</b> Telephone: 407-322-4000 Emergency Telephone: 800-255-3924 Web Site: www.hernon.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Physical state: Liquid  
Color: Black  
Odor: Unpleasant

**HMIS:**  
HEALTH: 3\*  
FLAMMABILITY: 1  
PHYSICAL HAZARD: 1  
Personal Protection: See Section 8

**WARNING:** SEVERE EYE AND SKIN IRRITANT.  
MAY CAUSE SENSITIZATION BY SKIN CONTACT.  
CORROSIVE.  
HARMFUL IF SWALLOWED.

**Primary Routes of Entry:** Skin, Inhalation, Eyes

### Signs and Symptoms of Exposure:

**Inhalation:** Can cause severe eye, skin and respiratory tract burns.

**Skin contact:** Harmful in contact with skin. Causes skin burns. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Eye contact:** Causes eye burns. May cause blindness. Severe eye irritation.

**Ingestion:** Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

**Chronic Health Hazard:** This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

**Existing Conditions Aggravated by Exposure:** Eye and skin disorders, allergies

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Calcined Alumina	40-60	10 mg/m <sup>3</sup> TWA Total dust	15 mg/m <sup>3</sup> TWA Total dust 5 mg/m <sup>3</sup> TWA Respirable dust	None
Aliphatic Amine	40-60	None	None	None
Carbon Black	0.1-1	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA

**4. FIRST AID MEASURES**

<b>General Advice:</b>	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
<b>Ingestion:</b>	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
<b>Inhalation:</b>	Remove to fresh air. If symptoms develop and persist, get medical attention.
<b>Skin Contact:</b>	Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately.
<b>Eye Contact:</b>	Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.
<b>Note to Physicians:</b>	Application of corticosteroid cream has been effective in treating skin irritation.

**5. FIRE FIGHTING MEASURES**

<b>Flash Point (TCC):</b>	> 200°F
<b>Recommended Extinguishing Agents:</b>	Alcohol-resistant foam, carbon dioxide, dry chemical, dry sand, limestone powder.
<b>Special Firefighting Procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Avoid contact with the skin. A face shield should be worn. Use personal protective equipment.
<b>Specific Hazards:</b>	May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.
<b>Unusual Fire or Explosion Hazards:</b>	None
<b>Flammable/Explosive Limits – lower %:</b>	Not available
<b>Flammable/Explosive Limits – upper %:</b>	Not available

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions:</b>	Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.
<b>Measures for Environmental Protection:</b>	Do not allow entry into drains or surface waters. Construct a dike to prevent spreading.
<b>Clean-up Measures:</b>	Approach suspected leak areas with caution. Place in appropriate chemical waste container.

**7. HANDLING AND STORAGE**

**Handling:** Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

**Storage:** Store between 46° and 82°F unless otherwise labeled to preserve shelf life. Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store in reactive metal containers.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

**Eye/Face Protection:** Safety glasses or goggles with side shields

**Skin Protection:** Use rubber, impervious gloves and protective clothing as necessary

**Respiratory Protection:** Use NIOSH approved respirator if there is a potential to exceed exposure limits

**Engineering Controls:** Forced ventilation may be required if concentrations exceed exposure limits

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid

**Color:** Black

**Odor:** Unpleasant

**Vapor Pressure:** Less than 1 mm at 21°C

**Vapor Density:** Not available

**Solubility in Water:** Low

**Specific Gravity:** 1.66

**Boiling Point:** > 200°C

**Volatile Organic Compound Content:** Not available

**Evaporation Rate (Ether = 1):** Not available

**pH:** Does not apply

**10. STABILITY AND REACTIVITY**

**Stability:** Stable under normal conditions

**Hazardous Polymerization:** Will not occur

**Hazardous Decomposition Products:** Nitric acid, ammonia, nitrogen oxides. Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide, carbon dioxide, aldehydes, flammable hydrocarbon fragments (e.g., acetylene).

**Incompatibility:** Sodium hypochlorite, organic acids (i.e. acetic acid, citric acid etc.), mineral acids. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Reactive metals (e.g. sodium, calcium, zinc etc.), materials reactive with hydroxyl compounds, oxidizing agents.

**11. TOXICOLOGICAL INFORMATION**

**Acute Health Hazard**

**Ingestion:** LD50: > 1,620 mg/kg, Species: Rat., Method: Estimated.  
**Skin:** LD50: > 1,000 mg/kg, Species: Rabbit, Method: Estimated.  
**Eye irritation/corrosion:** Severe eye irritation.  
**Acute dermal irritation/corrosion:** Severe skin irritation.  
**Sensitization:** May cause sensitization by skin contact.

Ingredients:	Literature Referenced Target Organ and Other Health Effects	Carcinogen Status		
		NTP	IARC	OSHA
Calcined Alumina	No data	NO	NO	NO
Aliphatic Amine	EYE COR SKI	NO	NO	NO
Carbon Black	RES	NO	2B	NO

**Abbreviations:**

**EYE** Eyes    **COR** Corrosive    **SKI** Skin    **RES** Respiratory    **2B** Suspect carcinogen

**12. ECOLOGICAL INFORMATION**

**Ecological Information:** Not available

**13. DISPOSAL CONSIDERATIONS**

**Recommended methods of disposal:** Dispose of according to Federal, State and Local regulations.  
**EPA Hazardous Waste Number:** Not an RCRA hazardous waste

**14. TRANSPORTATION INFORMATION**

**U.S. Dept. of Transportation Ground (49 CFR):**

**Proper Shipping Name:** Corrosive liquids, n.o.s. (Nonylphenol, Aminoethyl) piperazine, 1-(2-, (AEP))  
**Hazard Class or Division:** 8  
**Identification Number:** UN1760  
**Packing group:** III

**International Air Transportation (ICAO/IATA):**

**Proper Shipping Name:** Corrosive liquids, n.o.s. (Nonylphenol, Aminoethyl) piperazine, 1-(2-, (AEP))  
**Hazard Class or Division:** 8  
**Identification Number:** UN1760  
**Packing group:** III

**Water Transportation (IMO/IMDG):**

**Proper Shipping Name:** Corrosive liquids, n.o.s. (Nonylphenol, Aminoethyl) piperazine, 1-(2-, (AEP))  
**Hazard Class or Division:** 8  
**Identification Number:** UN1760  
**Packing group:** III  
**Marine pollutant:** Not available

**15. REGULATORY INFORMATION**

**United States Regulatory Information**

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory
<b>CERCLA/SARA 313:</b>	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): None
<b>California Proposition 65:</b>	This product contains trace quantities of a chemical (or chemicals) known to the state of California to cause cancer, birth defects, and/or other reproductive harm.

**16. OTHER INFORMATION**

<b>Prepared By:</b>	Jerry Litteral
<b>Title:</b>	Director - Quality & Development

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