

# MATERIAL SAFETY DATA SHEET

Prepared by: Technical Barrier Systems Inc.      Revision Date: January 7, 2011  
Manufactured by: Technical Barrier Systems Inc.  
151 Randall Street  
Oakville, ON L6J 1P5  
888-537-2888

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Where a proprietary ingredient is shown, the identity may be made available as provided in this standard.

All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**1. PRODUCT NAME: MONOBOND REGULAR RESIN**

Chemical Family: Epoxy Resin and Solvent Mixture

2. HAZARDOUS INGREDIENTS:	CASNO	EXPOSURE LIMITS*			CONTENT
		TLV	STEL	PEL	
Epoxy Resin	25068-38-6	None	None	None	75-90%
Acetone (Ac)	67-64-1	750ppm	1000ppm	750ppm	< 25%

\* Refer to Section 7 for available LD/LC(50) Health Hazard Data.

**3. PHYSICAL DATA:**

Boiling Point (°C):	(Ac) 56	Water/Oil Distribution	
Percent Volatile:	< 25	Coefficient:	N/Av
Freezing Point (°C)	N/Av	Solubility in Water:	ca. 20
Vapor Pressure mmHg @20(°C):	(Ac) 2	Specific Gravity:	1.09
Vapor Density:	> Air	pH:	N/Av
Odor Threshold:	N/Av	Evaporation Rate:	N/Av
Appearance:	Amber-clear Liquid	Odor:	Ketone,sweet
VOC	885 g/l		
N/Av = Not Available	N/Av = Not Available	ca. = Approximate	

**4. FIRE AND EXPLOSION HAZARD DATA:** HMIS Hazard Rating No. 3 (Serious)

**Flash Point:** > - 18°C (0°F)

**Method:** Pensky Martin C.C.

**Auto-Ignition Temp.:** Not Available

**Limits of Flammability:** LEL: 2.6% (Acetone)      UEL: 12.8% (Acetone)

**Extinguishing Media:** Carbon dioxide, foam, dry chemical & water fog.



**Chronic:** Product does not contain carcinogenic materials as defined by OSHA Hazardous Communications Act 1910.1200. Materials are not known mutagenic, teratogenic, or reproductive health hazards. Long term exposure to high concentrations of vapors may result in headaches, nausea, dizziness, central nervous system depression and narcosis.

**8. FIRST AID:**

**Inhalation:** Remove victim from exposure. If difficulty with breathing, administer oxygen. If breathing has stopped administer artificial respiration, preferably mouth-to-mouth. Seek medical attention.

**Eyes:** Flush eyes with water, lifting upper and lower lids occasionally for 15 minutes. Seek medical attention.

**Skin:** Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists seek medical attention. Wash contaminated clothing before reuse.

**Ingestion:** Do not give liquid if victim is unconscious or very drowsy, otherwise, give no more than two glasses of water or milk and induce vomiting by 2 tablespoons Syrup of Ipecac or by touching finger to back of victim's throat. Keep victim's head below hips while vomiting. Seek medical attention.

**9. SPECIAL PROTECTION INFORMATION:**

**Ventilation:** Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

**Personal Protection Equipment:** Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and Rubber/Latex gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard.

Confined spaces, rooms, or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

**10. ADDITIONAL INFORMATION:**

**Average Shelf Life:** Refer to Product Data Sheet.

**Special Instructions:** Store in cool, dry place.

**REGULATORY INFORMATION:**

**Title III Section 302:** CASRN 67-64-1 RQ: 5000 lbs

**Title III Section 311/312:** Health hazard: Immediate  
Delayed  
Physical hazard: Fire

**Title III Section 313:** CASRN 67-64-1 < 25%

**State:** California No reportable materials.  
**WHMIS Classification:** Class B, Div 2  
Class D, Div 2, Sub B  
**Canadian Domestic Substance List:** All chemicals are listed.

**11. TRANSPORTATION**

**National Motor Freight Classification (NMFC):** 46030 Sub: - Class: 55

**Description:** REGULATED - USE DOT PROPER SHIPPING NAME

**Emergency Response Guide Page No.:** 26

**DOT Reportable Quantity:** 20,000 lbs

**DOT:**

Shipping Name: RESIN SOLUTION  
UNNO: UN 1866 Class: 3 Package Group: II  
Contains: N/AP  
Label: FLAMMABLE Sub-Label: None

**INTERNATIONAL:**

Shipping Name: RESIN SOLUTION  
UNNO: UN 1866 Class: 3 Package Group: II  
Contains: N/AP  
Label: FLAMMABLE Sub-Label: None  
Marine Pollutant: NL

(NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

The information herein is given in good faith. No warranty, expressed or implied, is given regarding the accuracy of these data or the results obtained from the use thereof. Consult Technical Barrier Systems Inc. for further information.

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All components of this product are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**1. PRODUCT NAME: MONOBOND REGULAR HARDENER**

Chemical Family: Amino resin and ketone

2. HAZARDOUS INGREDIENTS: CONTENT	CASNO	EXPOSURE LIMITS*			
		TLV	STEL	PEL	
Polyamide resin	68082-29-1	None	None	None	45-60%
Acetone 1000ppm		67-64-1		750ppm	
	750ppm	40-50%			
Triethyleneteramine	112-24-3	None	None	None	< 5%

\*) Refer to Section 7 for available LD/LC(50) Health Hazard Data.

**3. PHYSICAL DATA:**

Boiling Point (°C):	(Acetone) 56	Water/Oil Distribution	
Percent Volatile:	60	Coefficient:	N/Av
Freezing Point (°C)	N/Av	Solubility in Water:	100%
Vapor Pressure mmHg @20(°C):	226mm	Gravity:	0.79
Vapor Density:	> Air	pH:	N/Av
Odor Threshold:	N/Av	Evaporation Rate:	N/Av
Appearance:	Amber-clear Liquid	Odor:	Ketone, sweet
VOC	449 g/l		
N/Av = Not Available	N/Av = Not Available	ca. = Approximate	

**4. FIRE AND EXPLOSION HAZARD DATA: HMIS Hazard Rating No. 3 (Serious)**

Flash Point: <-18°C (>0°F)

Method: Pensky Martin C.C.

Auto-Ignition Temp.: 465°C (869°F) (Acetone)

Limited of Flammability: LEL: 2.6% (Acetone) UEL: 12.8% (Acetone)

Extinguishing Media: Carbon dioxide, foam, dry chemical & water fog.

**Special Fire & Unusual Hazards:** At higher temperature vapors can cause pressure build up in sealed containers. Use water to cool containers exposed to fire. Vapors heavier than air can concentrate, travel to source of ignitions, and flash back.

Residue in container can ignite explosively. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding is not recommended for containers 5 gallon (20 litres) or smaller.

5. **REACTIVITY DATA:** HMIS Hazard Rating No. 0 (Minimal)

**Stability:** Stable. Not sensitive to mechanical impact. Excessive heat, fumes and smoke can occur if this product is not mixed and used according to directions.

**Incompatibility:** Peroxides, oxidizing, and reducing agents, excessive heat and sources of ignition.

**Hazardous Decomposition Products:** Oxides of carbon and nitrogen; various unknown hydrocarbons from incomplete combustion.

**Hazardous Polymerization:** Will not occur when handled per instructions.

6. **ENVIRONMENTAL AND DISPOSAL INFORMATION:**

**Action to Take For Spills/Leaks:** Ventilate area, eliminate all sources of ignition. Wear appropriate protective gear, contain leak or spill, salvage, and clean up residue with absorbent material.

**Waste Disposal Method:** Handle disposal of waste material in manner which complies with local, state, province and federal regulation. Incineration at agency approved waste-disposal facilities.

7. **HEALTH HAZARD DATA:** HMIS Hazard Rating No. 2 (Moderate)

**PRIMARY ROUTE OF ENTRY:** Inhalation, Skin, Eyes, and Oral

Effect of Overexposure

**Inhalation:** Vapors can be irritating to nose and mucous membranes. High exposures to Xylene may result in narcotic effect, headaches, psycho physiological changes, distorted perception and possible asphyxiation.

**LC(50) Inhal.** CASRN 67-64-1 50.1 gm/m<sup>3</sup> 8Hr Rat.

**Eyes:** Contact can cause severe irritation, redness, and tearing, blurred vision. May cause corneal injury.



**9. SPECIAL PROTECTION INFORMATION:**

**Ventilation:** Ventilation is recommended. Air movement must be designed to insure turnover at all locations in work area to avoid build up of heavy vapors.

**Personal Protection Equipment:** Do NOT wear contact lenses when working with this material. Use chemical goggles/safety glasses with side shields and Rubber/Latex gloves. Selection of specific items such as boots and apron will depend on operation. Wear respirator protection whenever airborne concentrations exceed TLV ceilings or TWA, use NIOSH/OSHA approved respirators equipped with an organic vapor cartridge for listed hazard. Confined spaces, rooms, or tanks are areas where concern for TLV's is especially important. Reference OSHA Regulation CFR 29 1910.134 for recommended respiratory protection.

**10. ADDITIONAL INFORMATION:**

Average Shelf Life: Refer to Product Data Sheet.  
Special Instructions: Store in cool, dry place.

**11. REGULATORY INFORMATION:**

Title III Section 302: CASRN 67-64-1 RQ: 5000 lbs.

Title III Section 311/312: Health hazard: Immediate  
Delayed  
Physical hazard: None

Title III Section 313: CASRN 67-64-1 < 50%

WHMIS Classification: Class B, Div 2  
Class D, Div 2, Sub B

**12. TRANSPORTATION**

**National Motor Freight Classification (NMFC):** 46030 Sub: - Class: 55

**Description:** REGULATED - USE DOT PROPER SHIPPING NAME

DOT Reportable Quantity: 0

DOT

Shipping Name: FLAMMABLE LIQUIDS, N.O.S.  
UNNO: UN 1993 Class: 3 Package Group: II  
Contains: ACETONE  
Label: FLAMMABLE Sub-Label: NONE

INTERNATIONAL

Shipping Name: FLAMMABLE LIQUIDS, N.O.S.  
UNNO: UN 1993 TDGDC: 3 Package Group: II  
Contains: ACETONE  
Label: FLAMMABLE Sub-Label: NONE

Marine Pollutant: NL (NL = Not Listed; P = Moderate; PP = Severe; ND = Not Determined)

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