

MATERIAL SAFETY DATA SHEET

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Revision No: New MSDS

SPAL-PRO 2000 "B"

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SPAL-PRO 2000 "B"

PRODUCT DESCRIPTION: Part B of a two component poured polyurethane elastomer

PRODUCT CODE: SPAL-PRO 2000 "B"

CHEMICAL FAMILY: Diisocyanate

MANUFACTURER

Metzger McGuire Co. Inc.

557 Route 3-A

Bow, NH 03304

Product Stewardship: 800-223-6680

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>	<u>EINECS#</u>
METHYLENEDIPHENYL DIISOCYANATE	40 - 60	26447-40-5	247-714-0
Methylene bisphenyl isocyanate	10 - 20	101-68-8	--
Polyether Polyol	20 - 35	9082-00-2	--

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Light yellow clear liquid.

IMMEDIATE CONCERNS: May cause skin, eye, and respiratory tract irritation.

POTENTIAL HEALTH EFFECTS

EYES: "A" Component liquids, vapors, or mists are irritating to the eyes and can cause stinging, burning, lachrymation or tearing.

SKIN: Exposure of skin to this product may cause minor irritation, reddening, swelling, or blistering. In some individuals, prolonged contact may cause rash resulting in dermatitis.

INGESTION: Ingestion could result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. These irritations would likely be followed by vomiting and cramps.

INHALATION: When breathing high concentration of vapors for extended periods of time without adequate ventilation, a person may experience dizziness due to a lack of oxygen, and should leave the area immediately. Respiratory track irritation may also occur.

4. FIRST AID MEASURES

EYES: Flush with copious quantities of clean running water immediately and for at least 15 minutes. Follow with ophthalmic boric acid solution and obtain medical attention immediately.

SKIN: Remove contaminated clothing and shoes. Wash affected areas with soap and water. If swelling or reddening occurs, obtain medical attention.

INGESTION: Do not induce vomiting. Give affected person 8 ounces of water. Obtain medical attention.

INHALATION: Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Obtain medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry Chemical, Carbon Dioxide, Chemical Foam, Water Fog or spray.

EXPLOSION HAZARDS: Closed containers could rupture explosively at elevated temperatures generated under fire conditions. During a fire, gases of a highly toxic nature may be generated by thermal decomposition or combustion.

FIRE FIGHTING PROCEDURES: Use water spray to cool fire-exposed surfaces and containers. Fire fighters should wear self-contained breathing apparatus in addition to emergency fire fighting protective clothing.

AUTOIGNITION TEMPERATURE: 464 Degrees F(4,4' - Diphenylmethane Diisocyanate).

FLASHPOINT: >230 Degrees F. (ASTM D-93 Closed Cup).

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Steps To Be Taken In Case Material Is Released Or Spilled:

1. Clean-up crews should wear protective clothing, gloves, boots, and goggles. Appropriate respiratory protection is also recommended.
2. Absorb spilled material with saw dust, dirt, or other absorbent material. Pour a decontamination solution of concentrated ammonia (5%), detergent (2%), and water (93%) over the spill area, allow to stand for at least 10 minutes, then sweep or shovel into open top containers. Remove containers to a safe place, cover loosely, and allow to stand for 2 days.

COMMENTS: Waste Disposal Method:

After allowing material to harden, dispose of, by any standard method of disposal in accordance with good industrial practice and in compliance with federal, state, and local environmental protection regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Precautions: Keep containers tightly sealed. Avoid moisture contamination.

STORAGE: Average Shelf Life: 6 Months

STORAGE TEMPERATURE: (65°F) minimum to (95°F) maximum

SHELF LIFE: 6 months.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS					
	OSHA PEL		ACGIH TLV		Supplier OEL	
	ppm	mg/m³	ppm	mg/m³	ppm	mg/m³
Methylene bisphenyl isocyanate	TWA	0.2	0.05			
	STEL		[1]			

OSHA TABLE COMMENTS:

1. NL = Not Listed

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: Wear rubber gloves, coveralls, and boots.

RESPIRATORY: If isocyanate exposure can exceed the PEL/TLV, use appropriate respiratory protection to protect from isocyanate

overexposure. Appropriate respiratory protection includes approved supplied air respirators (SAR) operated in a positive pressure mode or, in non-IDLH atmospheres, NIOSH approved air purifying respirators (APR), provided an appropriate cartridge change out schedule is implemented. [29 CFR 1910.134 (d)(3)(iii)]

Because of high potential exposure, appropriate respirator protection is recommended during any isocyanate spray application.

All respirator use should follow the OSHA Respiratory Standard 29 CFR 1910.134.

COMMENTS: Other Protective Equipment: Safety showers and eye wash stations.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: None Expected.

APPEARANCE: Viscous liquid

COLOR: Light yellow

pH: Not Applicable

PERCENT VOLATILE: None

VAPOR PRESSURE: Not Available

VAPOR DENSITY: Heavier

BOILING POINT: Not Available

FREEZING POINT: Not Available

MELTING POINT: Not Available

POUR POINT: Not available

THERMAL DECOMPOSITION: > (210°F)

SOLUBILITY IN WATER: Reacts

EVAPORATION RATE: Not Available

DENSITY: gr/cc

SPECIFIC GRAVITY: 1.1 to 1.22 @ 20°C/20°C

VISCOSITY: 420 to 512Centipoise at (74°F) Brookfield

MOLECULAR WEIGHT: Not Applicable

(VOC): 0

COEFF. OIL/WATER: Not Available.

ODOR THRESHOLD: Not Available.

WEIGHT PER VOLUME: g/cc

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: YES

STABILITY: Stable under normal conditions.

POLYMERIZATION: May occur with certain contaminations. May occur at temperatures over 400 degrees F.

HAZARDOUS DECOMPOSITION PRODUCTS: @>500 degrees F.- Carbon Monoxide, oxides of nitrogen, traces of HCN and MDI.

INCOMPATIBLE MATERIALS: This product will react with any materials containing active hydrogens such as water, alcohol, amines, bases and acids. The reaction with water is very slow under 122 degrees F, but is accelerated at higher temperatures.

COMMENTS: Conditions To Avoid: Temperature extremes. Container contamination.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: >5000 mg/kg (rabbit)

ORAL LD₅₀: >5000 mg/kg (rat)

EYE EFFECTS: The vapor, aerosol, and liquid are irritant.

SKIN EFFECTS: Moderate Irritant. Repeated and/or prolonged contact may cause skin sensitization. There is limited evidence from animal studies that skin contact may play a role in respiratory sensitization. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.

TARGET ORGANS: Not yet Determined.

CARCINOGENICITY:

CARCINOGENICITY COMMENTS: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

MUTAGENICITY: There is no substantial evidence of mutagenic potential.

REPRODUCTIVE EFFECTS: No adverse reproductive effects are anticipated.

NEUROTOXICITY: None known.

TERATOGENIC EFFECTS: No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal respirable concentrations well in excess of the defined occupational limits.

GENERAL COMMENTS: A study was conducted where groups of rats were exposed for 6 hours/day, two days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol at concentrations of 0, 0.2, 1, or 6 mg/m³. No adverse effects were observed at 0.2 mg/m³. At the 1 mg/m³ concentration, minimal nasal and lung irritant effects were seen. Only at the top concentration (6.0 mg/m³) was there an increased incidence of a benign tumor of the lungs (adenoma). One malignant pulmonary tumor (adenocarcinoma) was seen in the 6.0 mg/m³ group. MDI administration to rats in this study did not change the distribution and incidence of tumors from those seen in control animals. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Polymeric MDI. LC₅₀ (Zebra Fish) >1000mg/L. EC₅₀ (Daphnia magna) (24 hour) >1000 mg/L EC₅₀ (E. Coli) >100 mg/L.

DISTRIBUTION: It is unlikely that significant environmental exposure in the air or water will arise based on consideration of the production and use of the substance.

CHEMICAL FATE INFORMATION: Immiscible with water, but will react with water to produce inert and non-biodegradable solids.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be in accordance with local, state, provincial or national regulations.

EMPTY CONTAINER: Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA HAZARD CLASS: This material is not a hazardous waste under RCRA 40 CFR 261. Small quantities should be treated with a decontaminant solutions (See Section 6). The treated waste is not a hazardous material under RCRA 40 CFR 261.

GENERAL COMMENTS: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)**TECHNICAL NAME:** Polymeric diphenylmethane diisocyanate**PRIMARY HAZARD CLASS/DIVISION:** 9**PACKING GROUP:** III**U.S. SURFACE FREIGHT CLASS:** Chemicals NOI (NMFC 60000)**BULK FREIGHT CLASS:** Isocyanate**OTHER SHIPPING INFORMATION:** Single containers less than 5,000 lbs are not regulated. Single containers with 5,000 lbs or more of 4,4'-methylene diphenyl diisocyanate are regulated as: Other Regulated Substances, Liquid, N.O.S. (Methylene Diphenyl Diisocyanate), 9, NA3082, PGIII, RQ.**VESSEL (IMO/IMDG)****TECHNICAL NAME:** Polymeric diphenylmethane diisocyanate**PRIMARY HAZARD CLASS/DIVISION:** 9**15. REGULATORY INFORMATION****UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

DOT Class 9

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**311/312 HAZARD CATEGORIES:** Toxic, Irritating substances, Sensitizing substances.**FIRE:** NO **PRESSURE GENERATING:** NO **REACTIVITY:** NO **ACUTE:** YES **CHRONIC:** YES**313 REPORTABLE INGREDIENTS:** Diisocyanate compounds 100%.**302/304 EMERGENCY PLANNING****EMERGENCY PLAN:** Not Available.**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)****CERCLA REGULATORY:** None.**CERCLA RQ:** 4,4'-Methylene diphenyl diisocyanate (CAS 101-68-8) has a 5,000 lb RQ (reportable quantity). Any spill or release above the RQ must be reported to the National Response Center (800-424-8802).**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA STATUS:** All of the components of this product are either listed on the TSCA Inventory or are not subject to the notification requirements(exempt).**RCRA STATUS:** Not hazardous if discarded in its purchased form. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).**OSHA HAZARD COMM. RULE:** This material is classified as a hazardous material under the criteria outlined in the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).**CLEAN WATER ACT:** Not Established.**NATIONAL RESPONSE CENTER:** Not Established.**CARCINOGEN:** Not Established.**FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT):** None.**SDWA (SAFE DRINKING WATER ACT):** None.**FDA (FOOD AND DRUG ADMINISTRATION):** None.

DEA (DRUG ENFORCEMENT PRECURSOR & ESSENTIAL CHEMICALS) LISTED SUBSTANCE: None.

CLEAN AIR ACT

40 CFR PART 68--RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: Not Available.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR 1910.119--PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: Not Available.

CANADA

WHMIS CLASS: D-1A; D-2A and D-2B

CANADA INGREDIENT DISCLOSURE LIST: None.

CANADIAN ENVIRONMENTAL PROTECTION ACT: None.

DOMESTIC SUBSTANCE LIST (INVENTORY): All ingredients listed.

EUROPEAN COMMUNITY

EUROPEAN COMMUNITY REGULATORY: Not Established.

MEXICO None.

STATE REGULATIONS Not Established.

CALIFORNIA PROPOSITION 65: Not Established.

REGULATIONS

STATE REGULATIONS: Not Established.

LOCAL REGULATIONS: Not Established.

GENERAL COMMENTS: Not Established.

COMMENTS: None.

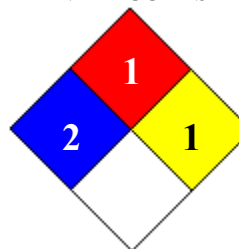
16. OTHER INFORMATION

REVISION SUMMARY New MSDS

HMIS RATING

HEALTH:	-	2
FLAMMABILITY:		1
PHYSICAL HAZARD:		1
PERSONAL PROTECTION:		

NFPA CODES



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