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 MATERIAL SAFETY DATA SHEET  
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## NORMAC ADHESIVE PRODUCTS

## NR-7S Part "B"

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 SECTION I - SUPPLIER AND MATERIAL IDENTIFICATION  
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**Supplier's Name:** Normac Adhesive Products Inc.  
 4390 Corporate Drive  
 Burlington, Ontario L7L 5R3  
 Tel: (905) 332-6455 Fax: (905) 332-6880  
 Emergency Phone Number Only: (Canutec) (613) 996-6666

**Product Class:** Curative Urethane

**Chemical Family:** Aromatic Amine

**Trade Name:** NR-7S Part "B"

**Cas No.:** Mixture

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 SECTION II - HAZARDOUS INGREDIENTS  
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	Cas No.	% Content	TLV
Dihydro -2(3H)-Furanone	98-48-0	30-60	10 ppm recommended
Methylene Dianiline (MDA)	101-77-9	30-50	0.1 ppm skin (ACGIH)

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 SECTION III - PHYSICAL DATA  
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**Specific Gravity:** 1.20

**Viscosity:** 18 cps @ 20°C

**Boiling Point:** 206°C

**Vapour Pressure:** 1.5 mm Hg @ 20°C

**Odour:** Rancid butter-like

**Appearance:** Brownish liquid

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 SECTION IV - FIRE AND EXPLOSION DATA  
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Flash Point: 104°C open cup

Auto Ignition Temp: 455°C

Flammable Limits in Air: 2.2 LEL 12.1 UEL

Fire Fighting Procedure: Wear self contained breathing apparatus in confined areas or when exposed to combustion products

Unusual Hazards: Low when exposed to heat or flame. Can react with oxidizing materials

Extinguishing Media: CO<sup>2</sup> Dry Chemical, or Foam

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 SECTION V - REACTIVITY DATA  
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Stability: Stable at ambient temperatures and pressure

Hazardous Polymerization: Will not occur

Incompatibility: Avoid contamination with water and strong oxidizing agents

Hazardous Decomposition Products: Only at elevated temperatures decomposition products may include aniline which is toxic by inhalation and skin contact. Combustion products include oxides of carbon and nitrogen.

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 SECTION VI - HEALTH RELATED DATA  
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## EXPOSURE LIMITS:

MDA: TLV: 0.1 PPM SKIN (ACGIH 1987-1988)

Effects of Overexposure: Toxic if ingested. Contact with eyes may cause moderate to severe irritation. Overexposure, by inhalation, skin absorption or ingestion may result in the following systemic effects; oxygen deficiency due to methanglobin formation, characterized by blue coloration of skin and hepatitis, high fever, chills and jaundice. MDA is suspect of carcinogenic potential for man based on animal studies of chronic overexposure. May cause liver damage.

Animal Data: Oral LD50 (Rats) 963.5 mg/kg

Carcinogenicity: MDA - The dihydrochloride salt of MDA was found to cause cancer in feeding studies on rats and mice.

Mutagenicity: AMES Salmonella: Positive

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 SECTION VI - HEALTH RELATED DATA (CONTINUED)  
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## FIRST AID

**Eyes:** Immediately flush with water for at least 15 minutes. Get medical attention.

**Skin:** Wash thoroughly with soap and water. Remove contaminated clothing and wash before re-use. Get medical attention.

**Ingestion:** If conscious take water and induce vomiting. Contact physician. Do not give anything or induce vomiting if person is unconscious.

**Special Precautions:** Absorbed through skin. Avoid contact with skin and eyes, inhalation of vapour use good hygiene washing hands and exposed skin after handling.

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 SECTION VII - SPILL, LEAK PROCEDURES  
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**Storage and Handling:** Store in a cool, dry place. Handle in a well ventilated area. Local exhaust recommended. Use protective equipment to prevent contact with skin and eyes.

**Spills:** Clean-up personnel must wear protective equipment to prevent contact with and inhalation of vapours. Absorb on inert, non-combustible material. Collect for disposal.

**Waste Disposal:** In accordance to local, state and federal regulations. Contact your local environmental agency.

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 SECTION VIII - CONTROL MEASURES  
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**Respiratory Protection:** Approved for organic vapours, dust and fumes

**Protective Gloves:** Impervious rubber

**Eye Protection:** Chemical safety goggles

**Clothing:** Wear appropriate clothing to prevent skin contact

**Ventilation:** Local exhaust recommended. Use respiratory equipment in confined areas.

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 SECTION IX - REGULATORY INFORMATION  
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<b>WHMIS:</b>	D.2.A Very Toxic
<b>Proper Shipping Name:</b>	4,4' Diaminodiphenylmethane
<b>TDG:(IATA &amp; IMO)</b>	UN 2651 Cl.6.1 Pkg. III
<b>Hazard Label:</b>	Poison Label

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**PREPARED BY:** G. MacGregor

MSDS Code: NR7S.B -