

SECTION 1 – PRODUCT IDENTIFICATION AND USE				
Material Denso Protal 7000 “B” Amines, Liquid, Corrosive, N.O.S.(N-Aminoethylpiperazine) UN2735, Class 8, PGIII		TDG Classification		
Manufacturer's Name Denso North America Inc.		Supplier's Name Denso North America Inc.		
Street Address 90 Ironside Crescent, Unit 12		Street Address 90 Ironside Crescent, Unit 12		
City Toronto	Province/Country Ontario	City Toronto	Province/Country Ontario	
Postal Code M1X 1M3	Emergency Telephone No. (613) 996-6666	Postal Code M1X 1M3	Emergency Telephone # (613) 996-6666	
Product Class Amine	Chemical Family Not Available	Manufacturer's Code 2053-3091		
WHMIS Classification Class D, Division 2, Sub.A Class E	Trade Name & Synonyms Denso Protal 7000 “B”	Material Use On-site Liquid Coating for Metal Pipes		
SECTION 2 – HAZARDOUS INGREDIENTS				
Ingredients	%	CAS Number	LD50 of Material (Specific Species & Route)	LC50 of Material (Specific Species)
N-Aminoethylpiperazine	30-60	140-31-8	Oral> 2150mg/kg Rat	N/A = Not Available
Polyamide Resin	10-30	68410-23-1	Oral> 16000mg/kg Rat	N/A
Bisphenol “A”	10-30	80-05-7	Oral> 4100mg/kg Rat	N/A
Dibutyl Phthalate	10-30	84-74-2	N/A	N/A
Epoxy Resin	10-30	9072-62-2	N/A	N/A
Nonyl Phenol	7-13	25154-52-3	Oral> 580mg/kg Rat	N/A
Triethylenetetramine	5-10	112-24-3	Oral> 3800mg/kg Rat	N/A
Amino Silane	5-10	1760-24-3	N/A	N/A
Ferric Oxide Hydroxide	3-7	51274-00-0	N/A	N/A
Benzylidimethylamine	1-5	103-83-3	N/A	N/A
SECTION 3 – PHYSICAL DATA				
Physical State Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/>		Odour and Appearance Ammoniacal Odour, Yellow Liquid		Odour Threshold (PPM) Not Available
Vapour Pressure (mm Hg) Not Available	Vapour Density (air = 1) Not Available	Evaporation Rate Not Available	Boiling Point (° C) Not Available	Freezing Point (° C) Not Available
% Volatile (by volume) Not Applicable	Solubility in Water (20° C) Moderate	pH 12.0	Specific Gravity 1.06	Coeff Water/Oil Dist Not Available
SECTION 4 – FIRE AND EXPLOSION DATA				
Flammability Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		If Yes, Under What Conditions?		
Means of Extinction Waterfog, CO2, Dry Chemical, Foam				
Special Procedures				
Flashpoint (° C) and Method 95°C (Setaflash Closed Cup)	Upper Explosion Limit (% by volume) Not Available		Lower Explosion Limit (% by volume) Not Available	
Auto Ignition Temperature (° C) Not Available	TDG Flammability Classification Not Applicable		Hazardous Combustion Products CO, CO2, Oxides of Nitrogen	
Sensitivity to Mechanical Impact Not Applicable	Rate of Burning Not Applicable	Explosive Power Not Applicable	Sensitivity to Static Discharge Not Applicable	

SECTION 5 – REACTIVITY DATA			
Chemical Stability Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If No, Under What Conditions?	
Hazardous Polymerization Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Reactivity, and Under What Conditions? <p style="text-align: center;">Not Applicable</p>			
Hazardous Decomposition Products <p style="text-align: center;">Not Available</p>			
SECTION 6 – TOXICOLOGICAL PROPERTIES			
Route of Entry Skin Contact <input checked="" type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation Acute <input checked="" type="checkbox"/> Inhalation Chronic <input checked="" type="checkbox"/> Ingestion <input checked="" type="checkbox"/>			
Effects of Acute Exposure to Material Contact of Material with Eyes will Result in Eye Irritation and Burns, Contact with Skin may Cause Irritation and Burns, Ingestion may Lead to Gastrointestinal Irritation or Ulceration, Inhalation may Result in Respiratory Tract Irritation and Burns.			
Effects of Chronic Exposure to Material Some Individuals may become Sensitized to the Material Over Time. (See Below)			
LD50 of Material Specify Species and Route Not Available	LC50 of Material Specify Species Not Available	Teraogenicity of Material <p style="text-align: center;">Not Applicable</p>	Mutagenicity of Material <p style="text-align: center;">Not Applicable</p>
Sensitization Capability of Material Skin and Respiratory	Carcinogenicity of Material <p style="text-align: center;">Not Applicable</p>	Reproductive Toxicity of Material <p style="text-align: center;">Not Applicable</p>	Synergistic Materials <p style="text-align: center;">None Known</p>
Exposure Limits of Material (TLV) Dibutyl Phthalate – TWA 5mg/m ³ (ACGIH), Ferric Oxide Hydroxide – TWA 10mg/m ³ (ACGIH)			
SECTION 7 – PREVENTATIVE MEASURES			
Personal Protective Equipment Wear Clean Long Sleeved, Body Covering Clothing, Use Impervious Gloves and Protective Clothing. Use Goggles and Full Face Shield. When Respiratory Protection is Required, Use an Approved Air Purifying Respirator. (See Below)			
Gloves (Specify) Impervious Type (Neoprene, PVC, Butyl)	Respiratory (Specify) Approved Air Purifying Respirator (Organic Vapour Cartridge)	Eye (Specify) Chemical Goggles	
Footwear (Specify) Work Boots	Clothing (Specify) Clean Long Sleeved, Body Covering (Overalls, Tyvek Suit)	Other (Specify) Full Face Shield	
Engineering Controls (Specify e.g. Ventilation Enclosed Process) Provide General Dilution of Local Exhaust in Volume and Pattern to Keep TLV of Hazardous Ingredients in Section 6 Below Acceptable Limits.			
Leak and Spill Procedure Remove All Sources of Ignition, Provide Adequate Ventilation. Avoid Prolonged Breathing of Vapours. Remove to a Container or Absorb with Clay, Diatomaceous Earth or Other Inert Absorbent.			
Waste Disposal **DO NOT INCINERATE CLOSED CONTAINERS** Incineration or Landfill in an Approved Site in Accordance with Local and Federal Regulations.			
Handling Procedure and Equipment Avoid Inhalation, Skin and Eye Contact. Practice Good Personal Hygiene. Wash Repeatedly with Soap and Water After Use and Before Work Breaks.			
Storage Requirements Keep Containers Closed and in a Cool Dry Place.			
Special Shipping Information			

SECTION 8 – FIRST AID MEASURES		
<p>EYE CONTACT – Flush Thoroughly with Water for at Least 15 Minutes. Get Immediate Medical Attention.</p> <p>SKIN CONTACT – Wash the Exposed Areas with Soap and Water Immediately. Call a Physician if Irritation Persists.</p> <p>INHALATION – Remove to Fresh Air. If Breathing is Difficult Administer Oxygen.</p> <p>INGESTION – Do Not Induce Vomiting. Administer Large Amounts of Milk or Water if Available. Transport to a Medical Facility.</p>		
Sources Used		
H & S Data from Raw Material Suppliers.		
Additional Information		
DISCLAIMER AND LIMITATION OF LIABILITY		
<p>While DENSO NORTH AMERICA INC. believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the test conducted, the data is not to be taken as warranty or representation for which DENSO NORTH AMERICA INC. assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Final determination of the suitability of the material for the use contemplated, the manner of use, and whether the suggested use infringes any patent is the sole responsibility of the buyer.</p>		
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SECTION 9 – PREPARATION OF THE MSDS		
Prepared by (Group, Department, etc.) Denso North America Inc.	Phone Number (416) 291-3435	Date September 3, 2008