WHMIS MATERIAL SAFETY DATA SHEET

SECTION 1 - Product Identification and Use			Date : **27 October, 2000**
Product identifier : **BELZONA® 3121 (MR7) BASE**			PIN/UN No : **1263**
Product use : **Repair and Reclamation**			WHMIS classification : **B3,D2B**
Manufacturer's name & address : **BELZONA POLYMERICS Ltd.,** Claro Road, Harrogate, Yorkshire, HG1 4AY, United Kingdom. Emergency telephone number : U.K. -44-1423-503218	Supplier's name & address : **BELZONA Inc.,** 2000 N.W. 88 Court, America's Gateway Park, Miami, Florida 33172, United States.		Supplier's emergency telephone numbers : (Spill, Leak, Fire, Exposure or Accident) 800 424 9300 - Toll free in Canada 202 483 7616 Information telephone number : 305 594 4994 - Working hours only

SECTION 2 - Hazardous Ingredients

Hazardous Ingredients	Approximate Concentration	CAS Numbers	Exposure Limits	LD_{50}/LC_{50} Species and Route
Epoxy resin (Number average molecular weight ≤700)	**10-30%**	**25068-38-6**	**Not available**	**Oral LD_{50}>5000mg/kg rat**
Paraisononylphenol	**0.5-1.5%**	**25154-52-3**	**Not available**	**Oral LD_{50} 580mg/kg rat**
Xylene	**1-5%**	**1330-20-7**	**ACGIH (TWA) TLV 100 ppm**	**Oral LD_{50} 4300mg/kg rat IHL LC_{50} 5000 ppm/4H rat**
Solvent naphtha(petroleum) light aromatic	**10-30%**	**64742-95-6**	**(TWA) 200 mg/m^3 ***	**Not available**
1,2,4 Trimethylbenzene	**7-13%**	**95-63-6**	**ACGIH (TWA) TLV 25 ppm**	**Oral LD_{50} 5000mg/kg rat IHL LC_{50} 1800 mg/m^3/4H rat**

*** Supplier's recommendation**

SECTION 3 - Physical Data

Physical state : **Thixotropic liquid**	Appearance/Odour : **White/hydrocarbon**	Odour threshold(ppm) : **Not available**
Vapour pressure (mm Hg) : **2.9 @ 25°C**	Vapour density (Air = 1) : **>1**	Boiling point (°C) : **160°C**
pH : **Not applicable**	Specific gravity : **1.17**	Coefficient water/oil : **Not applicable**
Freezing point (°C) : **Not available**	Solubility in water (20°C) : **Reacts**	Evaporation rate (relative to n-Butyl Acetate) : **Not available**

SECTION 4 - Fire and Explosion Data

Flammability : If yes, under which conditions :	**Flammable**	
Means of extinction :	**Use: sand, alcohol resistant foam, carbon dioxide, chemical powder, water fog for larger fires. Do NOT use water jet.**	
Special procedures :	**Wear protective clothing and use self-contained breathing apparatus. Full bunker gear should be worn in extreme cases. Use sand to contain burning material.**	
Flash point and method : **54°C Setaflash**	Explosion limits (% by volume) : Lower : **0.8** Upper : **Not available**	Autoignition temp (°C) : **Not available**
Hazardous combustion products : **Gaseous combinations of carbon, hydrogen and oxygen**		
Explosion data - Sensitivity to impact : **Not applicable**	Explosion data - Sensitivity to static discharge : **Not available**	

SECTION 5 - Reactivity Data

Chemical stability : If no, under which conditions :	**Yes**
Incompatibility to other substances : If yes, which ones :	**Yes** **Strong oxidizing agents, acids, bases, amines**
Reactivity and under what conditions :	**Not applicable**
Hazardous decomposition products :	**See hazardous combustion products above**

SECTION 6 - Toxicological Properties of Product

Route of entry :
Skin contact : √ Skin absorption : √ Eye contact : √ Inhalation acute : √ Inhalation chronic : Ingestion : √

Effects of acute exposure to product : **Harmful by inhalation.**

Effects of chronic exposure to product : **Prolonged or repeated contact with the skin or mucous membrane may result in irritant symptoms such as redness, blistering or dermatitis. Onset of symptoms may be delayed.**

LD_{50} of product (species and route) :	Irritancy of product : **Moderate to extreme on skin/eyes and respiratory system.**	Exposure limits of product : **Not available**
LC_{50} of product (species and route) : **Not available**	Sensitization to product : **Skin, on repeated contact**	Synergistic materials : **Not available**

Carcinogenicity : **N.av*** Reproductive effects : **N.av*** Teratogenicity : **N.av*** Mutagenicity : **N.av***

*** Not available for the mixture, however available information on the individual components does not indicate any chronic exposure hazard other than that stated above.**

† Equivalent LD_{50}, According to method described in Section 45 of the Controlled Products Regulations. The benzene content of the hydrocarbon constituents contained within this product is significantly below the 0.1% w/w threshold and therefore, the product is not classified as a carcinogen.

SECTION 7 - Preventative Measures

Personal protective equipment :	Gloves : **Use neoprene or nitrile or PVA**	Eye : **Goggles/faceshield**
Footwear : **Industrial boots**	Respiratory (protection required if exposure > TLV) : **NIOSH organic vapour**	Clothing : **Overalls**

Other :

Engineering controls :	**Where adequate natural ventilation is not available provide suitable local exhaust ventilation.**
Leak and spill procedures :	**Contain with an inert material (e.g. earth or sand). Sweep up and place into suitable covered, labelled containers. Flush area with detergent and water.**
Waste disposal :	**In accordance with Federal, Provincial and Local Regulations.**
Handling procedures :	**Avoid contact with skin and eyes. Do not breathe fumes/vapour.**
Storage requirements :	**Keep in a cool, well ventilated place, in the original containers.**

SECTION 8 - First Aid Measures

Skin :	**After contact with skin, wash immediately with plenty of soap and water.**
Eye :	**In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if any irritation persists.**
Inhalation :	**If symptoms are experienced, remove source of contamination or move victim to fresh air. Obtain medical attention immediately if recovery is delayed.**
Ingestion :	**Do not induce vomiting. Immediately rinse the mouth with water. Drink plenty of water (1 pint/600 mls). Seek medical attention promptly.**
General advice :	**When using do not eat, drink or smoke. Take off immediately all contaminated clothing and launder before reuse. Wash hands thoroughly after handling this product.**

SECTION 9 - Preparation Date of MSDS

Additional information : **Replaces previous issue dated 7 October 1997**

Prepared by :	Phone number :	Date :
N.A.Robinson	**U.K. -44-1423-567641**	**27 October, 2000**

WHMIS MATERIAL SAFETY DATA SHEET

SECTION 1 - Product Identification and Use		Date : **27 October, 2000**
Product identifier : **BELZONA® 3121 (MR7) SOLIDIFIER**		PIN/UN No : **1760**
Product use : **Repair and Reclamation**		WHMIS classification : **B3,D2B,E**
Manufacturer's name & address : **BELZONA POLYMERICS Ltd.,** Claro Road, Harrogate, Yorkshire, HG1 4AY, United Kingdom. Emergency telephone number : U.K. -44-1423-503218	Supplier's name & address : **BELZONA Inc.,** 2000 N.W. 88 Court, America's Gateway Park, Miami, Florida 33172, United States.	Supplier's emergency telephone numbers : (Spill, Leak, Fire, Exposure or Accident) 800 424 9300 - Toll free in Canada 202 483 7616 Information telephone number : 305 594 4994 - Working hours only

SECTION 2 - Hazardous Ingredients

Hazardous Ingredients	Approximate Concentration	CAS Numbers	Exposure Limits	LD_{50}/LC_{50} Species and Route
2,2'-Dimethyl-4,4'-methylenebis (cyclohexylamine)	**5-10%**	**6864-37-5**	**Not available**	**Oral LD_{50} 320 mg/kg rat** **Dermal LD_{50} 200 mg/kg rat**
Tris(dimethylaminomethyl)phenol	**5-10%**	**90-72-2**	**Not available**	**Oral LD_{50} 1200 mg/kg rat** **Dermal LD_{50} 1280 mg/kg rat**
Solvent naphtha(petroleum) light aromatic	**5-10%**	**64742-95-6**	**(TWA) 200 mg/m^3 ***	**Not available**
1,2,4 Trimethylbenzene	**1-5%**	**95-63-6**	**ACGIH (TWA) TLV 25 ppm**	**Oral LD_{50} 5000 mg/kg rat** **IHL LC_{50} 1800 mg/m^3/4H rat**
Benzyl alcohol	**1-5%**	**100-51-6**	**Not available**	**Oral LD_{50} 1230 mg/kg rat**

*** Supplier's recommendation**

SECTION 3 - Physical Data

Physical state : **Paste**	Appearance/Odour : **Black/hydrocarbon**	Odour threshold(ppm) : **Not available**
Vapour pressure (mm Hg) : **2.9 @ 25°C**	Vapour density (Air = 1) : **>1**	Boiling point (°C) : **160°C**
pH : **Not applicable**	Specific gravity : **1.54**	Coefficient water/oil : **Not applicable**
Freezing point (°C) : **Not available**	Solubility in water (20°C) : **Negligible**	Evaporation rate (relative to n-Butyl Acetate) : **Not applicable**

SECTION 4 - Fire and Explosion Data

Flammability : If yes, under which conditions :	**Not flammable, but combustible**	
Means of extinction :	**Use: sand, alcohol resistant foam, carbon dioxide, chemical powder, water fog for larger fires. Do NOT use water jet.**	
Special procedures :	**Wear protective clothing and use self-contained breathing apparatus. Full bunker gear should be worn in extreme cases. Use sand to contain burning material.**	
Flash point and method : **83°C Closed cup**	Explosion limits (% by volume) : Lower : **0.80** Upper : **Not available**	Autoignition temp (°C) : **Not available**
Hazardous combustion products : **Gaseous combinations of carbon, hydrogen, nitrogen and oxygen**		
Explosion data - Sensitivity to impact : **Not applicable**	Explosion data - Sensitivity to static discharge : **Not available**	

SECTION 5 - Reactivity Data

Chemical stability : If no, under which conditions :	**Yes**
Incompatibility to other substances : If yes, which ones :	**Yes** **Strong oxidizing agents, strong acids, epoxy resins, isocyanates, under uncontrolled conditions.**
Reactivity and under what conditions :	**Not applicable**
Hazardous decomposition products :	**See hazardous combustion products above**

Product identifier : **BELZONA® 3121 (MR7) SOLIDIFIER**

SECTION 6 - Toxicological Properties of Product

Route of entry :
Skin contact : √ Skin absorption : √ Eye contact : √ Inhalation acute : √ Inhalation chronic : Ingestion : √

Effects of acute exposure to product :	**Causes burns. Harmful by inhalation in contact with skin and if swallowed.**	
Effects of chronic exposure to product :	**None known.**	
LD_{50} of product (species and route) : **>500 mg/kg oral rat †**	Irritancy of product : **Extreme on skin/eyes**	Exposure limits of product : **Not available**
LC_{50} of product (species and route) : **Not available**	Sensitization to product : **Skin, on repeated contact**	Synergistic materials : **Not available**

Carcinogenicity : **N.av*** Reproductive effects : **N.av*** Teratogenicity : **N.av*** Mutagenicity : **N.av***

*** Not available for the mixture, however available information on the individual components does not indicate any chronic exposure hazard other than that stated above.**

† Equivalent LD_{50}, According to method described in Section 45 of the Controlled Products Regulations.The benzene content of the hydrocarbon constituents contained within this product is significantly below the 0.1% w/w threshold and therefore, the product is not classified as a carcinogen.

SECTION 7 - Preventative Measures

Personal protective equipment :	Gloves : **Use neoprene or nitrile or PVA**	Eye : **Goggles/faceshield**
Footwear : **Industrial boots**	Respiratory (protection required if exposure > TLV) : **NIOSH organic vapour**	Clothing : **Overalls**

Other :

Engineering controls :	**Where adequate natural ventilation is not available provide suitable local exhaust ventilation.**
Leak and spill procedures :	**Contain with an inert material (e.g. earth or sand). Sweep up and place into suitable covered, labelled containers. Flush area with detergent and water.**
Waste disposal :	**In accordance with Federal, Provincial and Local Regulations.**
Handling procedures :	**Avoid contact with skin and eyes. Do not breathe fumes/vapour**
Storage requirements :	**Keep in a cool, well ventilated place, in the original containers.**

SECTION 8 - First Aid Measures

Skin :	**After contact with skin, wash immediately with plenty of soap and water.**
Eye :	**In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if any irritation persists.**
Inhalation :	**If symptoms are experienced, remove source of contamination or move victim to fresh air. Obtain medical attention immediately if recovery is delayed.**
Ingestion :	**Do not induce vomiting. Immediately rinse the mouth with water. Drink one third of a pint/200 mls. of water every ten minutes for 30 minutes. Seek medical attention promptly.**
General advice :	**When using do not eat, drink or smoke. Take off immediately all contaminated clothing and launder before reuse. Wash hands thoroughly after handling this product.**

SECTION 9 - Preparation Date of MSDS

Additional information : **Replaces previous issue dated 7 October 1997**

Prepared by :	Phone number :	Date :
N.A.Robinson	**U.K. -44-1423-567641**	**27 October, 2000**