WHMIS MATERIAL SAFETY DATA SHEET

SECTION 1 - Product Identification and Use		Date : **12 May, 1998**
Product identifier : **BELZONA® 6111 (LIQUID ANODE) BASE**		PIN/UN No : **1263**
Product use : **Repair and Reclamation**		WHMIS classification : **B2,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
Xylene	**5-10%**	**1330-20-7**	**ACGIH TLV 100 ppm**	**Oral LD_{50} 4.3g/kg rat**
Propylene glycol monomethyl ether	**1-5%**	**107-98-2**	**ACGIH TLV 100 ppm**	**Oral LD_{50} >5g/kg rat**
Ethyl benzene	**1-5%**	**100-41-4**	**ACGIH TLV 100 ppm**	**Oral LD_{50} 3.5g/kg rat**

SECTION 3 - Physical Data

Physical state : **Thixotropic liquid**	Appearance/Odour : **Gray/aromatic**	Odour threshold(ppm) : **Not available**
Vapour pressure (mm Hg) : **7.7 @ 25°C**	Vapour density (Air = 1) : **>1**	Boiling point (°C) : ≥**137**
pH : **Not applicable**	Specific gravity : **3.27**	Coefficient water/oil : **Not available**
Freezing point (°C) : **Not applicable**	Solubility in water (20°C) : **Insoluble**	Evaporation rate (relative to n-Butyl Acetate) : **Slower**

SECTION 4 - Fire and Explosion Data

Flammability : If yes, under which conditions :	**Flammable**	
Means of extinction :	**Carbon dioxide or dry powder**	
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 : **24°C Setaflash**	Explosion limits (% by volume) : Lower : **1.1** Upper : **11.5**	Autoignition temp (°C) : **498**
Hazardous combustion products : **Gaseous combinations of carbon, hydrogen and oxygen**		
Explosion data - Sensitivity to impact : **Not applicable**	Explosion data - Sensitivity to static discharge : **Not applicable**	

SECTION 5 - Reactivity Data

Chemical stability : If no, under which conditions :	**Yes**
Incompatibility to other substances : If yes, which ones :	**Yes** **Strong oxidisers. Reacts with water to form hydrogen.**
Reactivity and under what conditions :	**Not applicable**
Hazardous decomposition products :	**See hazardous combustion products above**

Product identifier : **BELZONA® 6111 (LIQUID ANODE) BASE**

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 : **Skin, eye and respiratory tract irritation. Inhalation of vapours may cause nausea, dizziness, drowsiness or, in extreme cases, unconsciousness.**

Effects of chronic exposure to product : **Dermatitis**

LD_{50} of product (species and route) :	Irritancy of product :	Exposure limits of product :
Not available	**Irritant**	**See hazardous ingredients**
LC_{50} of product (species and route) :	Sensitization to product :	Synergistic materials :
Not available	**Not applicable**	**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.**

SECTION 7 - Preventative Measures

Personal protective equipment :	Gloves :	Eye :
	Nitrile or Neoprene	**Goggles/faceshield**
Footwear :	Respiratory (protection required if exposure > TLV) :	Clothing :
Industrial boots	**Face mask with organic vapour canister**	**Overalls**

Other :	**Air fed respirator if the oxygen content in the air being breathed is less than 18%.**
Engineering controls :	**Where adequate natural ventilation is not available provide suitable local exhaust ventilation.**
Leak and spill procedures :	**Contain with a dry inert material (e.g. 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 breathing vapours and contact with skin and eyes.**
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. If irritation or inflammation persists, seek medical attention.**
Eye :	**In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes 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 8 October 1997**

Prepared by :	Phone number :	Date :
Dr.W.R.Ashcroft	**U.K. -44-1423-567641**	**12 May, 1998**

WHMIS MATERIAL SAFETY DATA SHEET

SECTION 1 - Product Identification and Use		Date : **12 May, 1998**
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SECTION 2 - Hazardous Ingredients

Hazardous Ingredients	Approximate Concentration	CAS Numbers	Exposure Limits	LD_{50}/LC_{50} Species and Route
Xylene	**30-60%**	**1330-20-7**	**ACGIH TLV 100 ppm**	**Oral LD_{50} 4.3g/kg rat**
Propylene glycol monomethyl ether	**10-30%**	**107-98-2**	**ACGIH TLV 100 ppm**	**Oral LD_{50} >5g/kg rat**
Ethyl benzene	**5-10%**	**100-41-4**	**ACGIH TLV 100 ppm**	**Oral LD_{50} 3.5g/kg rat**

SECTION 3 - Physical Data

Physical state : **Liquid**	Appearance/Odour : **Blue or clear/aromatic**	Odour threshold(ppm) : **Not available**
Vapour pressure (mm Hg) : **7.7 @ 25°C**	Vapour density (Air = 1) : **>1**	Boiling point (°C) : ≥**137**
pH : **Not applicable**	Specific gravity : **0.92**	Coefficient water/oil : **Not available**
Freezing point (°C) : **Not applicable**	Solubility in water (20°C) : **Insoluble**	Evaporation rate (relative to n-Butyl Acetate) : **Slower**

SECTION 4 - Fire and Explosion Data

Flammability : If yes, under which conditions :	**Flammable**	
Means of extinction :	**Carbon dioxide or dry powder**	
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 : **24°C Setaflash**	Explosion limits (% by volume) : Lower : **1.1** Upper : **11.5**	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 applicable**	

SECTION 5 - Reactivity Data

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

Product identifier : **BELZONA® 6111 (LIQUID ANODE) 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 : **Skin, eye and respiratory tract irritation. Inhalation of vapours may cause nausea, dizziness, drowsiness or, in extreme cases, unconsciousness.**

Effects of chronic exposure to product : **Dermatitis**

LD_{50} of product (species and route) :	Irritancy of product :	Exposure limits of product :
Not available	**Irritant**	**See hazardous ingredients**
LC_{50} of product (species and route) :	Sensitization to product :	Synergistic materials :
Not available	**Not applicable**	**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.**

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Personal protective equipment :	Gloves :	Eye :
	Nitrile or Neoprene	**Goggles/faceshield**
Footwear :	Respiratory (protection required if exposure > TLV) :	Clothing :
Industrial boots	**Face mask with organic vapour canister**	**Overalls**

Other :	**Air fed respirator if the oxygen content in the air being breathed is less than 18%.**
Engineering controls :	**Where adequate natural ventilation is not available provide suitable local exhaust ventilation.**
Leak and spill procedures :	**Contain with a dry inert material (e.g. 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.**
Storage requirements :	**Keep in a cool, well ventilated place, in the original containers. Store away from sources of ignition and out of direct sunlight.**

SECTION 8 - First Aid Measures

Skin :	**After contact with skin, wash immediately with plenty of soap and water. If irritation or inflammation persists, seek medical attention.**
Eye :	**In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes 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.**

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