MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Plastic Bonder**
CAS #	Mixture
Product Use	Bonds and repairs
Manufacturer	J-B Weld Company P.O. Box 483 Sulphur Springs, TX 75482 US Phone: 903-885-7696

2. Hazards Identification

Emergency Overview	DANGER CAUSES EYE BURNS. CAUSES SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE ALLERGIC RESPIRATORY REACTION.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.
Inhalation	May cause respiratory tract irritation. May cause sensitisation by inhalation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Skin.
Chronic effects	Prolonged or repeated exposure may cause drying, defatting and dermatitis.
Signs and symptoms	The product may cause burns to eyes, skin and mucous membranes.
Potential environmental effects	See section 12.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Hydrous magnesium silicate	14807-96-6	10 - 30
Sodium oxide (Na2O)	1313-59-3	3 - 7
Kaolin	1332-58-7	3 - 7
Calcium oxide	1305-78-8	3 - 7
Alpha-Alumina	1344-28-1	3 - 7
4,4'-Diphenylmethane diisocyanate	101-68-8	30 - 60
Silica, amorphous, fumed	7631-86-9	7 - 13

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.

General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting Measures

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide. Water spray. Dry chemical. Foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighers	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapours or divert vapour cloud drift.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. DO NOT get in eyes. Do NOT get on skin. Avoid prolonged or repeated skin contact with this material. Avoid breathing vapours or mists of this product. Wash thoroughly after handling.
Storage	Keep out of the reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limit values

Ingredient(s)	Exposure limit values
4,4'-Diphenylmethane diisocyanate	**ACGIH-TLV** TWA: 0.005 ppm
Alpha-Alumina	**ACGIH-TLV** TWA: 10 mg/m3
Calcium oxide	**ACGIH-TLV** TWA: 2 mg/m3
Hydrous magnesium silicate	**ACGIH-TLV** TWA: 2 mg/m3
Kaolin	**ACGIH-TLV** TWA: 2 mg/m3
Silica, amorphous, fumed	**ACGIH-TLV** Not established
Sodium oxide (Na2O)	**ACGIH-TLV** Not established

Engineering controls Use only under good ventilation conditions or with respiratory protection.

Personal protective equipment

Eye/Face protection Wear safety glasses with side shields.

Hand protection Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Viscous
Colour	Beige / Tan
Form	Liquid
Odour	Not available
Odour threshold	Not available
Physical state	Liquid
pH	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation Rate	Not available
Flash point	> 93.4 °C (> 200.12 °F) Setaflash Closed Tester
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	Not available
Vapour density	> 1 (air=1)
Specific gravity	1.23 - 1.29 g/cm3
Octanol/water coefficient	Not available

Solubility (H2O)	Insoluble

10. Stability and Reactivity

Reactivity	This product may react with strong acids.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
4,4'-Diphenylmethane diisocyanate	Not available
Alpha-Alumina	Not available
Calcium oxide	Not available
Hydrous magnesium silicate	Not available
Kaolin	Not available
Silica, amorphous, fumed	Not available
Sodium oxide (Na2O)	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
4,4'-Diphenylmethane diisocyanate	9200 mg/kg rat
Alpha-Alumina	5000 mg/kg rat
Calcium oxide	Not available
Hydrous magnesium silicate	Not available
Kaolin	Not available
Silica, amorphous, fumed	5000 mg/kg rat
Sodium oxide (Na2O)	Not available

Effects of acute exposure

Eye	May cause chemical burns. May cause blindness.
Skin	May cause chemical burns. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.
Inhalation	May cause respiratory tract irritation. May cause sensitisation by inhalation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitisation	May cause sensitization by inhalation or skin contact.
Chronic effects	Fibrosis was observed in rats exposed to 6 mg/m3 of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m3 of airborne talc ore free of asbestos and silica. Lung scarring (pneumoconiosis) after chronic exposure to aluminum oxide dust and fume
Carcinogenicity	Non-hazardous by WHMIS criteria.

ACGIH - Threshold Limit Values - Carcinogens

Hydrous magnesium silicate	14807-96-6	A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers)
Kaolin	1332-58-7	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 3 (Not Classifiable)

4,4'-Diphenylmethane diisocyanate	101-68-8	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 19 [1979]
Hydrous magnesium silicate	14807-96-6	Monograph 93 [2010] (inhaled); Supplement 7 [1987]; Monograph 42 [1987]
Silica, amorphous, fumed	7631-86-9	Monograph 68 [1997]; Supplement 7 [1987]

Mutagenicity	Non-hazardous by WHMIS criteria.

Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae - Acute Toxicity Data

Silica, amorphous, fumed	7631-86-9	72 Hr EC50 Pseudokirchneriella subcapitata: 440 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Calcium oxide	1305-78-8	96 Hr LC50 Cyprinus carpio: 1070 mg/L [static]
Hydrous magnesium silicate	14807-96-6	96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]
Silica, amorphous, fumed	7631-86-9	96 Hr LC50 Brachydanio rerio: 5000 mg/L [static]

Ecotoxicity - Water Flea - Acute Toxicity Data

Silica, amorphous, fumed	7631-86-9	48 Hr EC50 Ceriodaphnia dubia: 7600 mg/L

Persistence and degradability	Not available
Bioaccumulation/accumulation	Not available
Mobility in environmental media	Not available
Environmental effects	Not available
Aquatic toxicity	Not available
Partition coefficient	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

4,4'-Diphenylmethane diisocyanate	101-68-8	0.1 %
Alpha-Alumina	1344-28-1	1 %
Calcium oxide	1305-78-8	1 %
Silica, amorphous, fumed	7631-86-9	1 %

WHMIS classification	Class D - Division 2A, 2B, Class E - Corrosive Material
WHMIS status	Controlled

WHMIS labeling

Inventory Status

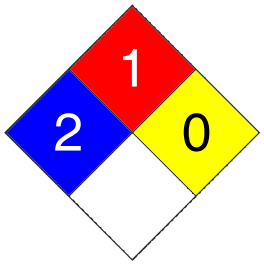
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	2
Flammability		1
Physical Hazard		0
Personal Protection		X



Disclaimer

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Other Information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.