



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	J-B Weld
Synonym(s)	Resin and Hardener
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	CAUTION MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Ingestion.
Eyes	May cause irritation.
Skin	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.
Inhalation	Not a normal route of exposure.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	See section 12.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Fatty acids, C18-unsaturated, dimers, reaction products with Polyethylenepolyamines	68410-23-1	5 - 10
Iron	7439-89-6	5 - 10
Limestone	1317-65-3	10 - 30
Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis, homopolymer	25085-99-8	10 - 30
Benzyl alcohol	100-51-6	1 - 5
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	1 - 5
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	1 - 5
Titanium oxide	13463-67-7	0.1 - 1

4. First Aid Measures

First aid procedures	
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	Not a normal route of exposure.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

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	Flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	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 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	Prevent entry into waterways, sewers, basements or confined areas.
Methods for containment	Stop the flow of material, if this is without risk.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Dampen material with water and use shovel or scoop to collect material in clean container for proper disposal. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated skin contact with this material. Wash thoroughly after handling.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Benzyl alcohol	ACGIH-TLV Not established OSHA-PEL Not established
Fatty acids, C18-unsaturated, dimers, reaction products with Polyethylenepolyamines	ACGIH-TLV Not established OSHA-PEL Not established
Formaldehyde, polymer with benzenamine, hydrogenated	ACGIH-TLV Not established OSHA-PEL Not established
Iron	ACGIH-TLV Not established OSHA-PEL Not established
Limestone	ACGIH-TLV TWA: 5 mg/m3 OSHA-PEL TWA: 15 mg/m3
Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] homopolymer	ACGIH-TLV Not established OSHA-PEL Not established
Phenol, polymer with formaldehyde, glycidyl ether	ACGIH-TLV Not established OSHA-PEL Not established
Titanium oxide	ACGIH-TLV TWA: 10 mg/m3 OSHA-PEL TWA: 15 mg/m3

Engineering controls

General ventilation normally adequate.

Personal protective equipment

Eye / face protection

Safety glasses if eye contact is possible.

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	Pliable
Color	Grey
Form	Putty

Odor	Not available
Odor threshold	Not available
Physical state	Solid
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	None known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers. Caustics.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of sulphur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Benzyl alcohol	8.8 mg/l/4h rat
Fatty acids, C18-unsaturated, dimers, reaction products with Polyethylenepolyamines	Not available
Formaldehyde, polymer with benzenamine, hydrogenated	Not available
Iron	Not available
Limestone	Not available
Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] homopolymer	Not available
Phenol, polymer with formaldehyde, glycidyl ether	Not available
Titanium oxide	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Benzyl alcohol	1230 mg/kg rat
Fatty acids, C18-unsaturated, dimers, reaction products with Polyethylenepolyamines	Not available
Formaldehyde, polymer with benzenamine, hydrogenated	Not available
Iron	984 mg/kg rat
Limestone	6450 mg/kg rat
Oxirane, 2,2-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] homopolymer	30000 mg/kg rat
Phenol, polymer with formaldehyde, glycidyl ether	Not available
Titanium oxide	24000 mg/kg rat

Effects of acute exposure

Eye	May cause irritation.
Skin	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.
Inhalation	Not a normal route of exposure.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Contains potential skin sensitizers.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	High concentrations of pigment-grade (powdered) and ultrafine titanium dioxide (titanium oxide) dust have caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation. Product is a non respirable form.

ACGIH - Threshold Limit Values - Carcinogens

Titanium oxide 13463-67-7 A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Titanium oxide 13463-67-7 Monograph 93 [2010]; Monograph 47 [1989]

U.S. - California - Proposition 65 - Carcinogens List

Titanium oxide 13463-67-7 carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)

Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Reproductive effects Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Name of Toxicologically Synergistic Products Not available

12. Ecological Information

Ecotoxicity	See below
Ecotoxicity - Freshwater Algae - Acute Toxicity Data	
Benzyl alcohol 100-51-6	3 Hr EC50 Anabaena variabilis: 35 mg/L
Ecotoxicity - Freshwater Fish - Acute Toxicity Data	
Benzyl alcohol 100-51-6	96 Hr LC50 Pimephales promelas: 460 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 10 mg/L [static]
Iron 7439-89-6	96 Hr LC50 Morone saxatilis: 13.6 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 0.56 mg/L [semi-static]
Ecotoxicity - Water Flea - Acute Toxicity Data	
Benzyl alcohol 100-51-6	48 Hr EC50 water flea: 23 mg/L
Persistence / 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, state/provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

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.
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Canada - WHMIS - Ingredient Disclosure List

Benzyl alcohol	100-51-6	1 %
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WHMIS status	Controlled
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WHMIS classification	Class D - Division 2A, 2B
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WHMIS labeling	
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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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US Federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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Section 302 extremely hazardous substance	No
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Section 311 hazardous chemical	Yes
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Clean Air Act (CAA)	Not available
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Clean Water Act (CWA)	Not available
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State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Iron 7439-89-6 Present

U.S. - California - Proposition 65 - Carcinogens List

Titanium oxide 13463-67-7 carcinogen, initial date 9/2/11 (airborne, unbound particles of respirable size)

U.S. - Illinois - Toxic Air Contaminant Carcinogens

Titanium oxide 13463-67-7 IARC 2B Carcinogen

U.S. - Massachusetts - Right To Know List

Benzyl alcohol 100-51-6 Present

Limestone 1317-65-3 Present

Titanium oxide 13463-67-7 Present

U.S. - Minnesota - Hazardous Substance List

Benzyl alcohol 100-51-6 Present

Limestone 1317-65-3 Present (dust)

Titanium oxide 13463-67-7 Present (dust)

U.S. - New Jersey - Right to Know Hazardous Substance List

Limestone 1317-65-3 sn 4001

Titanium oxide 13463-67-7 sn 1861

U.S. - Pennsylvania - RTK (Right to Know) List

Benzyl alcohol 100-51-6 Present

Limestone 1317-65-3 Present

Titanium oxide 13463-67-7 Present

U.S. - Rhode Island - Hazardous Substance List

Limestone 1317-65-3 Toxic

Titanium oxide 13463-67-7 Toxic

Inventory name

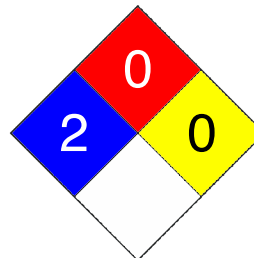
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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	0
Physical Hazard	0
Personal Protection	X

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Prepared by

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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.