Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name: Water Based Bonding Adhesive

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s): Construction: Adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer: Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260
United States

gentitemds@bfdp.com

Telephone (General): 800-428-4442

1.4 Emergency telephone number

Manufacturer: (800) 424-9300 - CHEMTREC
Manufacturer: (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP
- Eye Irritation 2 - H319
  Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335

DSD/DPD
- Irritant (Xi)
  R36/37

2.2 Label Elements

CLP

WARNING

Hazard statements
- H319 - Causes serious eye irritation
- H335 - May cause respiratory irritation

Precautionary statements
Prevention
- P261 - Avoid breathing dust, fume, gas, mist, vapours and/or spray.
- P271 - Use only outdoors or in a well-ventilated area.
- P264 - Wash thoroughly after handling.
According to OSHA 29 CFR 1910.1200 HCS

- **P280** - Wear eye/face protection.

**Response**
- **P304+P340** - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- **P312** - Call a POISON CENTER or doctor/physician if you feel unwell.
- **P305+P351+P338** - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P337+P313** - If eye irritation persists: Get medical advice/attention.

**Storage/Disposal**
- **P403+P233** - Store in a well-ventilated place. Keep container tightly closed.
- **P501** - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

---

**Risk phrases**
- **R36/37** - Irritating to eyes and respiratory system.

**Safety phrases**
- **S26** - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### 2.3 Other Hazards

**CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

**DSD/DPD**
- According to European Directive 1999/45/EC this preparation is considered dangerous.

---

**United States (US)**
According to OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

**OSHA HCS 2012**
- Eye Irritation 2A - H319
  - Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation - H335

### 2.2 Label elements

**OSHA HCS 2012**

**WARNING**

**Hazard statements**
- Causes serious eye irritation - H319
- May cause respiratory irritation - H335

**Precautionary statements**

**Prevention**
- Avoid breathing dust, fume, gas, mist, vapours and/or spray. - P261
- Wash thoroughly after handling. - P264
- Use only outdoors or in a well-ventilated area. - P271
- Wear eye/face protection . - P280

**Response**
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
- Call a POISON CENTER or doctor/physician if you feel unwell. - P312
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
- If eye irritation persists: Get medical advice/attention. - P337+P313

**Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

---

**2.3 Other hazards**

**OSHA HCS 2012**
According to WHMIS Standard, this product is considered hazardous.

**Canada**

**According to WHMIS**

### 2.1 Classification of the substance or mixture

**WHMIS**

- Other Toxic Effects - D2B

### 2.2 Label elements

**WHMIS**

- Other Toxic Effects - D2B

### 2.3 Other hazards

**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

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See Section 12 for Ecological Information.

---

### Section 3 - Composition/Information on Ingredients

#### 3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

#### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butadiene Styrene Copolymer</td>
<td>NDA</td>
<td>40% TO 50%</td>
<td>NDA</td>
<td>EU DSD/DPD: Data Lacking EU CLP: Data Lacking OSHA HCS 2012: Data Lacking</td>
<td>NDA</td>
</tr>
<tr>
<td>1,2-Propanediol</td>
<td>CAS:57-55-6 EC Number:200-338-0</td>
<td>&lt; 1%</td>
<td>Ingestion/Oral-Rat LD50 • 20 g/kg Skin-Rabbit LD50 • 20800 mg/kg</td>
<td>EU DSD/DPD: Not Classified - Criteria Not Met EU CLP: Not Classified - Criteria Not Met OSHA HCS 2012: Eye Irrit. 2B</td>
<td>NDA</td>
</tr>
</tbody>
</table>

See Section 11 for Toxicological Information.

---

### Section 4 - First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation**

- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

**Skin**

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Wash skin with soap and water. Take off contaminated clothing and
wash before reuse. If irritation develops and persists, get medical attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
- Do NOT induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Get medical attention and advise the physician of the nature of the material. If ingested, monitor for acidosis and central nervous system changes. Those with kidney history of dysfunction may require special treatment.

4.2 Most important symptoms and effects, both acute and delayed
- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media
Suitable Extinguishing Media
- Material is non-flammable. Use media appropriate for surrounding materials (e.g., water spray, alcohol foam, or carbon dioxide).

Unsuitable Extinguishing Media
- None known.

5.2 Special hazards arising from the substance or mixture
Unusual Fire and Explosion Hazards
- None known.

Hazardous Combustion Products
- Oxides of carbon.

5.3 Advice for firefighters
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal Precautions
- Use only with adequate ventilation. Wear respiratory protection. Wear appropriate protective clothing.

Emergency Procedures
- As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stay upwind. Keep out of low areas. Keep unauthorized personnel away. Ventilate closed spaces before entering.

6.2 Environmental precautions
- No special precautions necessary.

6.3 Methods and material for containment and cleaning up
Containment/Clean-up
- Stop leak if you can do it without risk. Absorb liquid on inert material. Transfer to secured container for proper disposal.

6.4 Reference to other sections
- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal
Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling
Handling
- Do not breathe vapors, dust, or spray mist. Use only with adequate ventilation. Avoid contact with eyes. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
Storage
- Do not allow product to freeze. Keep container/package tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)
- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Exposure Limits/Guidelines</th>
<th>Canada</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol (57-55-6)</td>
<td>10 mg/m³ TWA (for assessing the visibility in a work environment where 1,2-Propylene glycol aerosol is present, aerosol only); 50 ppm TWA (aerosol and vapor); 155 mg/m³ TWA (aerosol and vapor)</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering Measures/Controls
- This adhesive is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment
- Respiratory
  - In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.
- Eye/Face
  - Wear splash goggles.
- Skin/Body
  - Wear appropriate chemical resistant gloves.
- General Industrial Hygiene Considerations
  - Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Wash contaminated clothing prior to reuse.
- Environmental Exposure Controls
  - In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Physical Form</th>
<th>Liquid</th>
<th>Appearance/Description</th>
<th>White liquid with slight odor.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Color</td>
<td>White</td>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td></td>
<td>Odor Threshold</td>
<td>Data lacking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Properties
Boiling Point | 212 F (100 C) | Melting Point | 0 C (32 F) 
Decomposition Temperature | Data lacking | pH | 7.5 to 9 
Specific Gravity/Relative Density | 1 Water = 1 | Density | Data lacking 
Water Solubility | Soluble | Solvent Solubility | Data lacking 
Viscosity | Data lacking | Explosive Properties | Not explosive. 
Oxidizing Properties: | Not an oxidizer. 

Volatility 
Vapor Pressure | Data lacking | Vapor Density | > 1 Air = 1 
Evaporation Rate | Data lacking 

Flammability 
Flash Point | > 100 C (> 212 F) | UEL | Data lacking 
LEL | Data lacking | Autoignition | Data lacking 
Flammability (solid, gas) | Not flammable. 

Environmental 
Octanol/Water Partition coefficient | Data lacking 

9.2 Other Information 
- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity 
- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability 
- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions 
- Hazardous polymerization will not occur.

10.4 Conditions to avoid 
- Do not allow this product to freeze. Avoid contact with water sensitive materials and strong oxidizers.

10.5 Incompatible materials 
- Incompatible Materials: Water sensitive materials

10.6 Hazardous decomposition products 
- Burning will produce smoke, carbon monoxide, and carbon dioxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol (&lt; 1%)</td>
<td>57-55-6</td>
<td>Acute Toxicity: orl-rat LD50: 20 gm/kg; skn-rbt LD50: 20800 mg/kg; Irritation: eye-rbt 100 mg MLD; skn-hmn 500 mg/7D MLD; skn-hmn 104 mg/3D-I MOD</td>
</tr>
</tbody>
</table>

GHS Properties

| Acute toxicity | EU/CLP • Classification criteria not met | OSHA HCS 2012 • Classification criteria not met |
| Aspiration Hazard | EU/CLP • Classification criteria not met | OSHA HCS 2012 • Classification criteria not met |
Carcinogenicity
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Germ Cell Mutagenicity
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Skin corrosion/Irritation
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Skin sensitization
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

STOT-RE
- EU/CLP: Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
- OSHA HCS 2012: Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

STOT-SE
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Toxicity for Reproduction
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Respiratory sensitization
- EU/CLP: Classification criteria not met
- OSHA HCS 2012: Classification criteria not met

Serious eye damage/Irritation
- EU/CLP: Eye Irritation 2
- OSHA HCS 2012: Eye Irritation 2A

Route(s) of entry/exposure
- Inhalation, Skin, Eye, Ingestion/Oral

Medical Conditions Aggravated by Exposure
- Kidney disorders (via accidental ingestion). Pre-existing skin conditions.

Potential Health Effects

Inhalation
- Acute (Immediate): May cause respiratory irritation.
- Chronic (Delayed): No data available.

Skin
- Acute (Immediate): Under normal conditions of use, no health effects are expected.
- Chronic (Delayed): Prolonged or repeated skin contact may cause irritation.

Eye
- Acute (Immediate): Causes serious eye irritation.
- Chronic (Delayed): No data available.

Ingestion
- Acute (Immediate): May cause gastrointestinal irritation and central nervous system depression if accidentally ingested.
- Chronic (Delayed): Lactic acidosis, stupor and seizures from chronic ingestion only.

Carcinogenic Effects
- The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

Key to abbreviations
LD = Lethal Dose
MLD = Mild
MOD = Moderate

Section 12 - Ecological Information
12.1 Toxicity
   - Material data lacking.

12.2 Persistence and degradability
   - Material data lacking.

12.3 Bioaccumulative potential
   - Material data lacking.

12.4 Mobility in Soil
   - Material data lacking.

12.5 Results of PBT and vPvB assessment
   - No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects
   - No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods
Product waste
   - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
   - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN number</th>
<th>14.2 UN proper shipping name</th>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>TDG</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>IMO/IMDG</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>ADN</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>ADR/RID</td>
<td>NDA</td>
<td>Not Regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>NDA</td>
<td>Not regulated</td>
<td>NDA</td>
<td>NDA</td>
<td>NDA</td>
</tr>
</tbody>
</table>

14.6 Special precautions for user
   - None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
   - Not relevant.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA Hazard Classifications
   - Acute
### State Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol</td>
<td>57–55-6</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Canada DSL</th>
<th>Canada NDSL</th>
<th>EU EINECS</th>
<th>EU ELNICS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2-Propanediol</td>
<td>57–55-6</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Canada

#### Labor

**Canada - WHMIS - Classifications of Substances**

- 1,2-Propanediol: 57-55-6
  - Uncontrolled product according to WHMIS classification criteria
- Water: 7732-18-5
  - Uncontrolled product according to WHMIS classification criteria

**Canada - WHMIS - Ingredient Disclosure List**

- 1,2-Propanediol: 57-55-6
  - 1 %
- Water: 7732-18-5
  - Not Listed

#### Environment

**Canada - CEPA - Priority Substances List**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed

### Europe

#### Other

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases**

- 1,2-Propanediol: 57-55-6
  - Not Listed
- Water: 7732-18-5
  - Not Listed
United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - OSHA - Specifically Regulated Chemicals
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
- 1,2-Propanediol 57-55-6 Not Listed
- Water 7732-18-5 Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)
• 1,2-Propanediol  57-55-6  Not Listed
• Water  7732-18-5  Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female
• 1,2-Propanediol  57-55-6  Not Listed
• Water  7732-18-5  Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male
• 1,2-Propanediol  57-55-6  Not Listed
• Water  7732-18-5  Not Listed

15.2 Chemical Safety Assessment
   ● No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date  ● 08/May/2014
Preparation Date  ● 25/July/2012
Disclaimer/Statement of Liability
   ● The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information, is accurate, complete or representative. Firestone Building Products Company, LLC assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Building Products Company assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.

Key to abbreviations
NDA = No Data Available