

## SIMALFA 900-PU

### Product Description

SIMALFA 900-PU is a high yielding and fast drying water based adhesive based on polyurethane dispersions that can be used in a wide variety of applications. While primarily designed for use with foams, fibers, and fabrics, Simalfa 900-PU will bond to many different materials including wood and plastic.

Designed to assist clients in meeting the requirements of MBDC "Cradle to Cradle" Certification.

### Key Properties

Bonds to Many Materials  
High Yield  
Fast Processing  
Fast Drying  
Very High Temperature Resistance  
Soft Bond Line  
Solvent Free

### Certifications

GREENGUARD Indoor Air Quality Certified®  
GREENGUARD Children & Schools<sup>SM</sup>

### Physical Properties

Composition: ..... Polyurethane dispersion in water.  
Color: ..... Natural (white), or custom  
Odor: ..... Faint  
Solids Content: ..... 40-50%  
Density: ..... ~ 1.04 g/cm<sup>3</sup> at 68°F (20°C) ISO 2811-1  
Particle Size: ..... <0.1 - 10 micron  
pH Value 73°F (23°C) ..... 8.0 - 9.0  
Viscosity: ..... ~ 100 cP (Brookfield: spindle 3, 20rpm)  
Boiling Point: ..... 212°F (100°C)  
Freezing Point: ..... 32°F (0°C)  
VOC Content ..... ~ 200 mg/kg (Directive 2004/42/CE of EU)  
Storage and Handling: ..... Minimum 40°F (5°C) and maximum 104°F (40°C). Store in a dry place.  
Keep tightly closed to prevent loss of moisture.  
Shelf Life: ..... 4 months in unopened container.  
Cleaning: ..... Washable with water.



# SIMALFA<sup>®</sup>

## Available Container Sizes

Simalfa is available in 5, 110, and 250 gallon containers (20, 440, and 1000 kg containers).  
For additional container size information, visit the web at: [www.simalfa.com/Techinfo/Container.htm](http://www.simalfa.com/Techinfo/Container.htm)

## Surface Preparation

Surfaces must be clean, dry and dust free. Any petroleum based product such as oil or grease can prevent suitable bonding.

## Application

Never agitate or mix before using. Simalfa can be applied to both surfaces with a spray gun or via roll. Spray guns should be adjusted to give a paint-like spray pattern. Hold the spray gun between 6"- 12" (15cm - 25cm) from the surface and be sure to overlap the pattern slightly with each pass to ensure uniform coverage.

## Coverage

Coverage will vary depending on the porosity of substrates and strength of adhesive bond desired. Typical users will cover up to 1000 square feet per gallon. In all cases, user evaluation will be required to determine the optimum coverage levels for their application.

## Assembly and Bonding Time

Simalfa bonds immediately after spraying. Users can reposition the substrates, to maximize the quality of their product, without re-spraying. Pressure may be applied via manual or mechanical methods to enhance the initial bond. In addition, the user can place the substrates together up to 20 minutes after spraying if required by their production process. After 20 minutes the adhesive may dry and the final adhesion can suffer, or a pseudo-adhesion could take place.

The final bond is achieved once the residual water has evaporated. Although water evaporation happens quickly, it is recommended users wait 24 hours before performing any final bond testing.

## Application Method and Equipment

SIMALFA is best dispensed via our patented Free Flowing gravity delivery system and applied with our high volume low-pressure (HVLP) spray guns. Other spray gun manufacturers may also have suitable application equipment. To find out if your spray gun works with Simalfa, just contact us, we can help.

We can supply all the necessary design, engineering and equipment to properly install and use SIMALFA.

Application Methods:..... Manual spray, Automatic spray, Roll, or Brush

Spray Gun:..... SIMALFA HVLP

Nozzle Size:..... 1.0 - 1.5 mm

Method of Dispensing:..... Free Flowing System (Patent#: 5868319) or pressure container.  
Pumping is not recommended

Other Information: ..... All parts coming in contact with adhesive must be made of stainless steel or plastic. Definitely NO colored metals such as aluminum, steel, brass, etc.

Cleaning of Equipment: ..... Use water only. Never use solvents of any type.  
DO NOT SUBMERGE SPRAY GUN IN WATER

## Cleanup

In some cases wet adhesive may be removed with water. Dry adhesive cannot easily be removed from porous substrates such as foams or fabrics. It is recommended that users prevent adhesive from getting on surfaces where it's not wanted.



### Precautionary Information

Please refer to the Material Safety Data Sheet and Product Label for Health and Safety Information before using Simalfa.

### For Additional Information

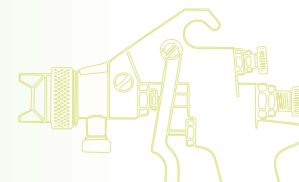
To request further information visit our website at [WWW.SIMALFA.COM](http://WWW.SIMALFA.COM), contact us via telephone at (973)423-9266, or mail us at SIMALFA, 15 Lincoln Street, Hawthorne NJ 07506 USA.

To arrange an on-site demonstration please contact us at (973)423-9266 immediately.

### Important Notice

This information is accurate to the best of Alfa Adhesives, Inc.'s knowledge, or obtained from sources believed by Alfa Adhesives, Inc. to be accurate. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of this product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth, or that the products, designs, data or information may be used without infringing the intellectual property rights of others. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by Alfa Adhesives, Inc. hereunder are given gratis and Alfa Adhesives, Inc. assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.





## SIMALFA 900-PU

### 1. Chemical Product and Company Information

Trade Name: ..... SIMALFA® 900-PU  
Product Use: ..... Water-borne adhesive for bonding foams and/or fabrics.  
Composition: ..... Polyurethane dispersion in water  
Company: ..... Alfa Adhesives, Inc. 15 Lincoln Street, Hawthorne, NJ 07506 USA  
Telephone: (973)423-9266 Fax: (973)423-9264

### 2. Composition / Information on Ingredients

Chemical Name	CAS#	Amount	Exposure Limits
Water	7732-18-5	50-60%	None
Proprietary Mixture	N/A	40-50%	None

### 3. Hazards Identification

Eye: ..... Possible irritant  
Skin: ..... Possible irritation, drying or cracking of skin due to drying effect.  
Ingestion: ..... Gastrointestinal effects such as vomiting and diarrhea are possible after ingesting.  
Inhalation: ..... Possible irritant  
Known Synergists: ..... None Known  
Explosion Hazard: ..... None Known  
Fire Hazard: ..... None Known  
Corrosion Hazard: ..... None Known

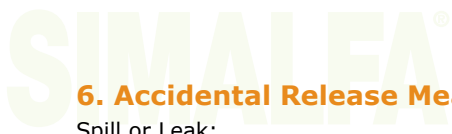
### 4. First Aid Measures

Eye Contact: ..... Rinse with water for 15 minutes with lids spread. For continued irritations, contact a physician.  
Skin Contact: ..... Wash with soap and water. Remove contaminated clothes.  
Ingestion: ..... If swallowed, dilute with water and consult a physician.  
Effects of Overexposure: ..... None known. For continued irritations, contact a physician.

### 5. Fire and Explosion Hazard Data

Flash Point: ..... None  
Ignition Point: ..... None known  
Extinguishing Media: ..... Water, foam, dry powder  
Special Firefighting Procedures: ..... None known  
Unusual Fire & Explosion Hazards: . None known





## 6. Accidental Release Measures

Spill or Leak: ..... Pump large quantities into containers; use sand to soak up remainder or use absorbing material like diatomaceous earth according to regulations. For smaller quantities clean up with water.

Personal Protection: ..... Eye protection and gloves recommended.

## 7. Handling and Storage

Storage and Handling: ..... Minimum 40°F (5°C) and maximum 104°F (40°C). Store in a dry place. Keep tightly closed to prevent loss of moisture. DO NOT FREEZE

Shelf Life..... 4 months in unopened container.

## 8. Exposure Controls / Personal Protection

Respiratory: ..... Not generally required during normal use and handling. The need for respiratory protection should be evaluated if this material is sprayed in poorly ventilated areas.

Ventilation:..... General ventilation is recommended during normal use. Local ventilation may be required during certain operations.

Protective gloves: ..... Not required. Wash hands thoroughly.

Eye protection: ..... Wear face shield, safety glasses or approved goggles.

Other equipment: ..... Wear protective clothing. Eye wash station should be available.

## 9. Physical Properties

Physical Form: ..... Liquid

Color: ..... Natural (white), or custom

Odor:..... Faint

Solids Content: ..... 40-50%

Density: ..... ~ 1.04 g/cm<sup>3</sup> at 68°F (20°C) ISO 2811-1

Particle Size: ..... <0.1 - 10 micron

pH Value 73°F (23°C) ..... 8.0 - 9.0

Viscosity: ..... ~ 100 cP (Brookfield: spindle 3, 20rpm)

Boiling Point: ..... 212°F (100°C)

Freezing Point:..... 32°F (0°C)

VOC Content..... ~ 200 mg/kg (Directive 2004/42/CE of EU)

## 10. Stability and Reactivity

Conditions to Avoid: ..... Keep from freezing / Avoid extreme heat

Incompatibility ..... None known

Corrosive Properties..... Corrosive effects to metal are not anticipated

Oxidizer Properties ..... Not fire-propagating

Other Reactivity Data..... None known

## 11. Toxicological Information

### Effects

Eye: ..... No published data available

Skin: ..... No published data available

Inhalation: ..... No published data available

Ingestion: ..... No published data available

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.





### 12. Ecological Information

General..... This material is not regulated by RCRA or CERCLA "Super fund"

Toxicity Data ..... If Simalfa is applied properly no detrimental effect has become known. During long-lasting influence on skin and mucous membranes, irritations are possible.

Ecology Data ..... Simalfa may not come in waters without having been pre-treated. Simalfa will be eliminated from the water since it is absorbed by the sewage sludge. If small concentrations are piped into biological sewage treatment plants no failure of the degradation process are to be expected.

### 13. Disposal Considerations

Disposal:..... Care should be taken to ensure that material or its containers are disposed of in an approved facility in accordance with current federal, state and local regulations.

### 14. Transportation Information

DOT Shipping Name: ..... Not regulated by DOT

UN Number..... None

DOT Hazard Class..... None

DOT Labels Required: ..... None

### 15. Regulatory Information

#### US Federal Regulations

EPA TSCA Inventory..... All ingredients listed

SARA Section 313: ..... Not applicable

US DOT Regulations: ..... See Section 14

This product is not hazardous according to the OSHA Hazard Communication Standard

#### US State Regulations

State Right-to-Know Laws: ..... See Section 2

#### Canadian Regulations

Domestic Substance List: ..... All ingredients listed

WHMIS

Transport of dangerous goods: ..... Not applicable

Not a controlled product under Canadian WHMIS.

# SIMALFA®

## 16. Other Information

Hazard Ratings	Health	Fire	Reactivity	Special
HMIS	1	0	0	NA

Workers using Simalfa 900-PU should read and understand this MSDS and be trained in the proper use of this material.

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### MSDS Prepared by:

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