

{ TECHNICAL DATA SHEET }

ISO 9001:2008 REGISTERED | GREENGUARD GOLD + GREENGUARD CERTIFIED

SIMALFA 820-OF

Product Description

SIMALFA 820-OF (Overspray Free) is a super instant tack, high yielding, and fast drying two-part water based adhesive that can be used in a wide variety of applications. While primarily designed for the bedding industry (pillow tops, foam layers, foam encased), Simalfa 820-OF has exception characteristics that allow foam to instantly bond to many different materials including wood and plastic.

Key Properties

- Super Instant Tack
- Very-Fast Drying
- High Yield
- Instant Bond
- Fast Processing
- One-Sided Application
- Soft Bond Line
- Solvent Free

Certifications

Greenguard Gold + Greenguard Certified (Pending)

Physical Properties

- Composition:..... Dispersion of acrylic resin, and synthetic rubber in water.
- Color:..... Natural (white), or custom
- Odor:..... Characteristic
- Solids Content: ~54%
- Specific Gravity: ~1.06 g/cm³ at 68°F (20°C)
- pH Value 73°F (23°C)..... 11.5 – 12.5
- Viscosity Brookfield..... 500 - 1000 mPa•s (Brookfield RV, Sp. 2, 20 rpm)
- Heat Resistance:..... 176°F – 194°F (80°C – 90°C)
- Boiling Point: 212°F (100°C)
- Freezing Point: 32°F (0°C)
- 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: 6 months in unopened container.
- Cleaning: Washable with water.



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

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. However, in many instances, single sided application is the preferred method. 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 immediately or up to 15 minutes after spraying if required by their production process. After 15 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

Spray Gun: SIMALFA HVLP

Nozzle Size: 1.5 mm, 2.0 mm or 2.5 mm

Method of Dispensing: Free Flowing System (Patent#: 5868319), pressure container or pump.

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 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, 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.

TDS Prepared by:

Alfa Adhesives, Inc.
15 Lincoln Street
Hawthorne, NJ 07506 USA
Tel: 973.423.9266
Fax: 973.423.9264



{ SAFETY DATA SHEET }

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SIMALFA 820-OF

SECTION 1: Identification

Product identifier: SIMALFA 820-OF (Overspray Free)
 Synonyms: None known
 Product Code Number: 820-OF
 SDS number: AA001-820-OF
 Recommended use: Adhesives. Manufacture of flexible foam components, furniture, bedding and vehicles.
 Recommended restrictions: For uses other than above, contact manufacturer for advise.

Manufacturer Information:

Company name: Alfa Adhesives, Inc.
 Company address: 15 Lincoln Street, Hawthorne NJ 07506 USA
 Company telephone: 1.973.423.9266
 Office hours (Mon – Fri): 6.00 am to 5:00 pm EST
 Company contact name: Darren Gilmore, darren.gilmore@simalfa.com
 Emergency phone number: 1.973.423.9266

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards: Not classified as a physical hazard under GHS criteria
 Health hazards: Not classified as a health hazard under GHS criteria
 Environmental hazards: Not classified as a physical hazard under GHS criteria.
 GHS signal word: Not applicable.
 GHS hazard statement(s): This mixture is classified as not hazardous according to paragraph (d) of §1910.1200.
 GHS Hazard symbol(s): Not applicable.

GHS Precautionary statement(s):

Prevention: No prevention precautionary statements required.
 Response: No response precautionary statements required
 Storage: No storage precautionary statements required.
 Disposal: No disposal precautionary statements required.

Hazard(s) not otherwise Classified (HNOC):

None known.

Ingredient(s) of unknown acute toxicity:

Not applicable.



SECTION 3: Composition/information on ingredients**Mixture:**

Acrylate / CR (polychloroprenes, Chloroprene rubber).

| Chemical Name | CAS# | Concentration (weight %) |
|--|------|--------------------------|
| No hazardous components above the classification threshold | | |

Note: The balance of the ingredients are not classified as hazardous, or are below the classification threshold under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

SECTION 4: First-aid measures**Description of necessary measures:****Inhalation:**

Remove to fresh air. In case of irritation of the respiratory tract seek medical advice.

Skin contact:

After contact with skin, wash immediately with soap and water. In case of skin irritation, seek medical treatment.

Eye contact:

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

Ingestion:

Contact a physician/medical advice immediately.

Most important symptoms/effects, acute and delayed:

None currently known.

Indication of immediate medical attention and special treatment needed:

If any symptoms are observed, contact a physician and give them this SDS sheet.

SECTION 5: Fire-fighting measures**Suitable extinguishing media:**

Water. Foam. Dry extinguishing powder.

Unsuitable extinguishing media:

None known.

Specific hazards:

Product is not combustible. In case of fire and/or explosion do not breathe fumes. Combustion products – Irritating gases and vapors. Special protective equipment and precautions for fire-fighters: Full protective clothing and NIOSH-approved self-contained breathing apparatus should be worn. Use water to cool exposed containers.



SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Wear appropriate protective equipment, such as gloves, goggles and protective clothing, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures. Change contaminated clothing.

Environmental Precautions:

Stop spill/release if it can be done safely. Do not empty into drains or the aquatic environment. Cover drains.

Methods and material for containment and cleaning up:

Remove mechanically, placing in appropriate containers for disposal. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clear contaminated area thoroughly. Retain contaminated washing water and dispose. Dispose of in accordance with all local, state, and federal regulations.

SECTION 7: Handling and storage**Precautions for safe handling:**

The necessary precautions for handling chemicals should be followed. If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Conditions for safe storage, including any incompatibles:

Store only in original container. Keep container tightly closed. The adhesive is sensitive to frost! Temperatures below 0°C will destroy the adhesive!

Storage conditions:

Store between 5°C to and 40°C

Shelf life:

6 months in unopened container.

SECTION 8: Exposure controls/personal protection**Control Parameters:****Occupational exposure limits:**

Does not contain substances above concentration limits fixing an occupational exposure limit.

| US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): | | |
|--|------------------|-------------------|
| Permissible Exposure Limits | | |
| Substance | PEL-TWA (8 hour) | PEL-STEL (15 min) |
| Not Applicable | | |

| US ACGIH Threshold Limit Values | | |
|---------------------------------|------------------|-------------------|
| Substance | TLV-TWA (8 hour) | TLV-STEL (15 min) |
| Not Applicable | | |



| NIOSH Exposure Limits | | |
|-----------------------|-----|------|
| Substance | TWA | STEL |
| Not Applicable | | |

Appropriate engineering controls:

General room ventilation should be adequate. Local ventilation may be required during certain operations. See also Section 7.

Individual protection measures, such as personal protective equipment:**Eye/face protection:**

Use suitable safety glasses. Eye protection should be compliant with OSHA regulations.

Skin and hand protection:

Use appropriate gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection:

None required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate, use type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other:

Other protective clothing may be required depending on degree of exposure.

Thermal hazards:

No data available.



SECTION 9: Physical and chemical properties**Appearance**

| | |
|-------------------------------------|------------------------------------|
| Physical state: | Liquid |
| Color: | White, custom |
| Odor: | Characteristic |
| Odor threshold: | No data available |
| pH: | 11.5 - 12.5 Test method: DIN 19268 |
| Melting point/freezing point: | Not applicable |
| Initial boiling point and | >100°C |
| boiling range: | Not applicable |
| Flash point: | Not applicable |
| Evaporation rate: | No data available |
| Flammability (solid, gas): | Non-flammable |

Upper/lower flammability or explosive limits

| | |
|---------------------------------------|---|
| Flammability limit – lower (%): | Not applicable |
| Flammability limit – upper (%): | Not applicable |
| Explosive limit – lower (%): | Not applicable |
| Explosive limit – upper (%): | Not applicable |
| Vapor pressure: | ~ 130 hPa @ 50°C |
| Vapor density: | No data available |
| Relative density (@50oC): | 1.06 g/cm ³ |
| Solubility: | Miscible in water |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Viscosity (dynamic): | 500 - 1000 mPa•s (Brookfield RV, Sp. 2, 20 rpm) |

Other information:

| | |
|-----------------------|-------------|
| Heat resistance | ~ 80 – 90°C |
| Solid content | ~ 54% |

SECTION 10: Stability and reactivity

| | |
|---|--|
| Reactivity: | Not chemically reactive. |
| Chemical stability: | Stable under normal ambient and anticipated conditions of use. |
| Possibility of hazardous reactions: | Not known. |
| Conditions to avoid: | Do not freeze. |
| Incompatible materials: | None known. |
| Hazardous decomposition: | Thermal decomposition can lead to the escape of irritating gases and vapors. |



SECTION 11: Toxicological information**Information on likely routes of exposure:**

Inhalation: Not an expected route of entry.

Ingestion: Not an expected route of entry.

Skin: Not an expected route of entry.

Eyes: Not an expected route of entry.

Symptoms related to the physical, chemical, and toxicological characteristics:

None expected.

Delayed and immediate effects and chronic effects from short or long-term exposure:

None expected.

Numerical measures of toxicity:

Ingredient Information

| Substance | Test Type (species) | Value |
|----------------|-----------------------|-------|
| Not Applicable | LD50 Oral (Rat) | - |
| | LD50 Dermal (Rabbit) | - |
| | LC50 Inhalation (Rat) | - |

Skin corrosion/irritation:

Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/eye irritation:

Not expected to cause serious eye damage/eye irritation.

Respiratory sensitization:

No information available on the mixture, however none of the components have been classified as a respiratory sensitizer (or are below the concentration threshold for classification).

Skin sensitization:

No information available on the mixture, however none of the components have been classified as a skin sensitizer (or are below the concentration threshold for classification).

Germ cell mutagenicity:

No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

Carcinogenicity:

No information available on the mixture, however none of the components are listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.

Reproductive toxicity:

No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).



Specific target organ toxicity:**Single exposure:**

No information available on the mixture, however none of the components have been classified for STOT SE (or are below the concentration threshold for classification).

Specific target organ toxicity:**Repeat exposure:**

No information available on the mixture, however none of the components have been classified for STOT RE (or are below the concentration threshold for classification).

Aspiration hazard:

No information available on the mixture, however none of the components have been classified for aspiration hazard (or are below the concentration threshold for classification).

Further information:

No data available.

SECTION 12: Ecological information**Ecotoxicity:****Product data:**

Product may not be released into water without pre-treatment.

Ingredient Information:

| Substance | Test Type | Species | Value |
|----------------|-----------|---------|-------|
| Not Applicable | LD50 | - | - |
| | EC50 | - | - |
| | EC/LC50 | - | - |

Persistence and Degradability:

No data available.

Bioaccumulative Potential:

No data available.

Mobility in Soil:

No data available.

Other adverse effects:

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge. Observe regulations concerning local drainage.



SECTION 13: Disposal considerations**Appropriate method of disposal of substance or preparation**

Dispose of contaminate product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate Federal, State and Local regulatory agencies to ascertain proper disposal procedures.

Contaminated packaging:

Completely emptied packing can be recycled.

SECTION 14: Transport Information**US Department of Transportation Classification (49CFR)**

Not regulated under DOT

IMDG

Not regulated under IMDG

IATA (Country variations may apply)

Not regulated under IATA

Environmental hazards

Marine pollutant: No.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No further relevant information available.

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.

PROTECT FROM FROST/FREEZING

SECTION 15: Regulatory Information**United States Federal Regulations:**

This SDS complies with the OSHA, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA):

All substances in this product are listed, as required, or are exempt from the TSCA inventory.

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA Hazardous Substance List, 40 CFR 302.4:

This product does not contain chemicals listed on CERCLA.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):

None

SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

None



Section 311/312 (40 CFR 370):

Acute Health Hazard:..... No

Chronic Health Hazard:..... No

Fire Hazard:..... No

Pressure Hazard:..... No

Reactivity Hazard:..... No

Section 313 Toxic Release Inventory (40 CFR 372):

None

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Massachusetts Right to Know:

None of the components are listed on the Massachusetts Right to Know List.

New Jersey Right to Know:

None of the components are listed on the New Jersey Right to Know list.

Pennsylvania Right to Know:

None of the components are listed on the Pennsylvania Right to Know List.

Canada WHMIS Hazard Class:

Not applicable

SECTION 16: Other Information**NFPA Hazard Classification**

Health: 1 | Flammability: 0 | Instability: 0 | Special Hazards: None

Revision Date: Aug 28, 2015**Disclaimer:**

Workers using Simalfa should read and understand this SDS and be trained in the proper use of this material.

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.

