



Advanced Adhesive Technologies, Inc.

AAT-322 FG Sheet Vinyl Pressure Sensitive Adhesive Specification Sheet

Description:

AAT-322 FG Sheet Vinyl PSA is an acrylic based adhesive specifically formulated for installing sheet vinyl with fiberglass cores and PVC cushioned backs intended for use with pressure sensitive adhesives (PSA). AAT-322 can be used on all grade levels over concrete and approved wood sub-floors in the absence of excessive moisture emissions and alkalinity. (MVER max. 5lbs./1000 sq ft/24 hours ASTM F 1869, RH 75% ASTM F 2170, pH 5-10)

AAT-322 is nonflammable, contains no carcinogens, no solvents and is non-toxic. AAT-322 has excellent plasticizer migration resistance. AAT-322 is freeze-thaw stable. This zero VOC adhesive is protected by the CleanGuard® two-stage antimicrobial. CleanGuard® is a specifically formulated broad-spectrum, anti-microbial agent that protects our adhesives and sealers from microorganisms, such as mold or mildew, in both the wet and dry state.

Site Conditions:

The sub-floor should be prepared according to the standards and practices set forth in the document ASTM F 710. The building should be completely enclosed. All outside doors and windows should be properly installed with latching mechanisms in place.

Landscaping should be sufficiently completed to direct water away from the building. Gutters and downspouts should be in place.

All concrete, masonry, plastering, drywall, and other wet work should be completed and thoroughly dry prior to beginning the installation. Texturing and paint primer coats should be completed. Where possible the installation of the base molding should not take place until after the flooring has been installed.

Adequate ventilation should be available. The HVAC system for the building should have a consistent temperature of 65-75°F (air and sub-floor) and humidity levels should be between 35-55% for a minimum of 72 hours prior to and following the installation.

Basement and crawl spaces should be dry and adequately ventilated. Sub-floors must be checked for moisture content and emissions using industry accepted methods. Crawl spaces should meet local building codes regarding minimum heights, cross ventilation, and the use of vapor retarders.

Sub-floors must be free from dust, dirt, grease, wax, curing agents, sealers, oil, and any other bond inhibiting substances. The sub-floor should be level within 3/16" in 10' or 1/8" in 6'.

Densified concrete must be dry with moisture emission rates that do not exceed 5 lbs/1000 sq ft / 24 hours as measured by the Anhydrous Calcium Chloride Test (ATSM-1869-04) and for lightweight aggregate concrete the relative humidity of the slab should be less than 75% according to the ASTM F 2170 standard. The concrete surface pH must be between 5 and 10. Before moisture testing begins, the slab must be cured for a minimum of 30 days. Fill low areas with a cementitious leveling compound or latex mild additive latex patch with 3,000 psi compressive strength. Leveling compounds must be tested to ensure they are properly cured within the manufacturer's specified requirements before proceeding with the installation. Mechanical surfaces profiling is the preferred sub-floor preparation method. Mechanically profile the sub-floor to medium-grit sandpaper texture. Sanding or scoring with open paper or a titanium disk is preferred. Remove curing and parting compounds and other surface hardeners and floor coatings according to the manufacturer's instructions. Lightweight or acoustical concrete, less than 3,000 psi, must be primed with a compatible primer such as AAT-570 Primer/Sealer.

For Wood Joist Systems the sub-floor should be structurally sound, free of loose panels or boards, and free of protruding fasteners. Moisture content should be within normal industry standards for the areas average environmental conditions. Underlayment panels should be fastened according to the manufacturer's specifications. All panel seams should be sanded level and prepared according to the manufacturer's instructions. Minimum sub-flooring: 5/8" CDX plywood sub-floor/underlayment (Exposure 1), maximum 16" o.c. construction. Install the flooring perpendicular to the floor joists. Do not install flooring over existing glue-down wood flooring or nailed down wood flooring that is wider than 3 1/4". Wide plank floors must be covered with an acceptable underlayment.

AAT-322 may be used to install over existing sheet vinyl and vinyl tiles if the existing flooring is well bonded. Clean the surface thoroughly and de-gloss the surface using an abrasive pad to create a suitable sub-floor. Resilient sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other inhibiting substances. These substances must be removed with the appropriate stripper/removers. Fill low areas with a cementitious leveling compound or latex milk additive latex patch with minimum 3,000 psi compressive strength. Leveling compounds must be tested to ensure they are properly cured and within the manufacturer's specified requirements before proceeding with the installation. Repair and replace loose flooring products. Never sand any resilient flooring that may contain asbestos fibers. Allow the adhesive to dry to the touch, so that there is little or no transfer of the adhesive to the finger before placing the floor covering.



Slabs with a radiant heating system are acceptable sub-floors for installing sheet vinyl with the following stipulations. The heating system should be fully operational for a minimum of seven days prior to the installation. The system should be shut down to allow the slab to cool down to room temperature before applying adhesive. Immediately after completing the installation turn the system back on and set to normal temperature. The sub-floor cannot exceed 85°F throughout the life of the installation. Check with the system manufacturer to determine that the system is designed for the desired R-rating for resilient flooring. Failure to ensure proper system design can result in excessive heat damage and tile or plank shrinkage.

Follow application and installation procedures provided with the flooring. Regulations may require that existing flooring material or coatings be tested to determine the asbestos content.

Installation Recommendations:

1. Flooring and adhesive should be acclimated to the job site conditions for 24 hours prior to the installation.
2. Sub-floor must be cleaned, free of dust, dirt, grease, wax, paint, curing or parting agents or any other substance that may affect the bond. Concrete floors must be level, fully cured, free of excessive moisture emissions, alkali and relative humidity.
3. Be familiar with the recommendations and any special instructions from the flooring manufacturer before beginning the installation. Refer to the information above for specific information regarding subfloor preparation and site conditions.
4. After the sheet vinyl has acclimated and relaxed according to the manufacturer's instructions. Trim the flooring to fit the room. Now roll or lap back approximately half of the flooring to expose the sub-floor.
5. Apply the adhesive according to the flooring manufacturer's recommendations. SEE BELOW. It is the responsibility of the installer to correctly apply the adhesive and in the proper quantity. Pay particular attention to the adhesive application that will fall at the seams. Avoid puddles, thin spots, and voids when applying the adhesive.
6. Allow the adhesive to dry to the touch, not transferring to fingers. High humidity and low temperatures will affect drying time. When applying adhesive over nonporous substrates allow additional time for the adhesive to dry to a pressure sensitive state. Placing vinyl into wet adhesive will result in an aggressive, permanent bond.
7. Carefully, place the sheet vinyl into the adhesive to avoid trapping air under the flooring. Do not drop or flop the sheet vinyl into place. Using either the "broom method" or a three-section roller (max. 75lb.), according to the flooring manufacturer's recommendations, remove any trapped air.
8. When the first half is properly adhered, repeat the process for the remaining flooring. Be careful handling the material at the glue line. Do not distort any patterns or tear the backing.
9. Keep traffic to a minimum and avoid placing heavy furniture or appliances for a minimum of 24 hours.

Application and Coverage:

Apply the AAT-322 with either a U-notched trowel, 1/16" wide x 1/32" deep x 1/32" spacing, or a 3/8" nap roller. Coverage rate is up to 250 square feet per gallon. Note: Applying adhesive with an improper trowel can cause adhesive telegraphing and can affect your warranty and performance. Do not exceed recommended coverage rates.

Specific Technical Data:

- A. Base: Acrylic Latex Emulsion
- B. Color: White
- C. VOC: 0 g/l SCAQMD Rule 1168. CRI Greenlabel Certified—low VOC PSA
- D. Application method: Apply per recommendations from floor covering manufacturer's installation instructions.
- E. Freeze-Thaw Stable to 15°F. Stability and spreadability can be affected if allowed to freeze. Frozen material should be allowed to thaw at room temperature. DO NOT agitate or stir while frozen.
- F. Clean-up: Remove wet adhesive with warm water. Use AAT-197 Adhesive Remover to remove dry adhesive.
- G. Shelf-Life: One year from date of manufacture in un-opened container when stored at 70°F.
- H. Sizes: 4 Gallon and 1 Gallon pails

For questions regarding specific installations or usage information contact AAT's Technical Department Monday thru Friday from 8 a.m. to 5 p.m. (EST) at 800-228-4583. Additional information can also be found thru our website at www.aatglue.com.

* Determining whether the sub-floor is porous or non-porous is the responsibility of the user. You can check the sub-floor by placing two drops of water in several areas across the sub-floor. The sub-floor is porous if the water is absorbed within a few seconds. If the water beads and is not absorbed within a few seconds the sub-floor is non-porous.

Warranty:

AAT products are manufacture red to rigid Quality Control Specification and warranted to be free of defects. Defective brought to our attention within one year of manufacture will be replaced at no charge to our customer. Complete warranty information can be obtained by calling 800-AAT-GLUE and requesting a copy or by visiting our Website at www.aatglue.com.



Safety Data Sheet
acc. to OSHA HCS

Printing date 07/18/2018

Reviewed on 03/22/2018

1 Identification

- **Product identifier**
- **Trade name:** AAT-322
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Advanced Adhesive Technologies
424 South Spencer Street
Dalton, GA 30721
+1 (800) 228-4583
- **Emergency telephone number:**
CHEMTREC USA +1 (800) 424-9300 & INTERNATIONAL +1 (703) 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
ethyl acrylate
1,2-benzisothiazol-3(2H)-one
- **Hazard statements**
May cause an allergic skin reaction.
Suspected of causing cancer.
- **Precautionary statements**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
If exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).

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If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

140-88-5	ethyl acrylate	1.69%
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4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

140-88-5	ethyl acrylate	8.3 ppm
1336-21-6	ammonia	61 ppm
57-13-6	urea	30 mg/m ³

- **PAC-2:**

140-88-5	ethyl acrylate	36 ppm
1336-21-6	ammonia	330 ppm
57-13-6	urea	280 mg/m ³

- **PAC-3:**

140-88-5	ethyl acrylate	240 ppm
1336-21-6	ammonia	2,300 ppm
57-13-6	urea	1,700 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

140-88-5 ethyl acrylate

PEL	Long-term value: 100 mg/m ³ , 25 ppm Skin
REL	See Pocket Guide App. A
TLV	Short-term value: 61 mg/m ³ , 15 ppm Long-term value: 20 mg/m ³ , 5 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Fluid
Color: According to product specification

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range: Undetermined.

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Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	25.8 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gl
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Oral	LD50	47,337 mg/kg (rat)
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Dermal	LD50	108,521 mg/kg (rabbit)
Inhalative	LC50/4 h	128,994 mg/l (rat)

140-88-5 ethyl acrylate

Oral	LD50	800 mg/kg (rat)
Dermal	LD50	1,834 mg/kg (rabbit)
Inhalative	LC50/4 h	2,180 mg/l (rat)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

140-88-5	ethyl acrylate	2B
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· TSCA (Toxic Substances Control Act):	
9003-04-7	2-propenoic acid, homopolymer, sodium salt
140-88-5	ethyl acrylate
1336-21-6	ammonia
57-13-6	urea
2634-33-5	1,2-benzisothiazol-3(2H)-one
7732-18-5	water, distilled, conductivity or of similar purity

- **Proposition 65**

· Chemicals known to cause cancer:	
140-88-5	ethyl acrylate

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.	
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- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.	
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- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.	
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- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

57-13-6	urea	II
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- **TLV (Threshold Limit Value established by ACGIH)**

140-88-5	ethyl acrylate	A4
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- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

140-88-5	ethyl acrylate	
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- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Warning

- **Hazard-determining components of labeling:**

ethyl acrylate
1,2-benzisothiazol-3(2H)-one

- **Hazard statements**

May cause an allergic skin reaction.
Suspected of causing cancer.

- **Precautionary statements**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
If exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Technical Department

- **Contact:** Technical Director

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

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