

Technical Data Sheet [TDS]

AAT-420 Premium Vinyl Plank and LVT Adhesive

AAT-420 Premium Vinyl Plank and LVT Adhesive is a uniquely formulated adhesive engineered specifically for installing solid vinyl plank and tile (LVT). It may also be used to install solid vinyl sheet flooring and rubber tile (up to 24" x 24"). AAT-420 is moisture and alkali resistant and forms a tenacious, permanent bond. AAT-420 can be used on all grade levels over concrete and approved wood sub-floors in the absence of excessive moisture and alkalinity. AAT-420 may also be used over certain nonporous sub-floors.

Our premium vinyl plank and tile adhesive, AAT-420, is solvent free, nonflammable, contains no carcinogens and is non-toxic. AAT-420 is freeze-thaw stable. Like all of our adhesives, AAT-420 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 states.



Sub-floors must be flat and structurally sound. The sub-floor should be flat within 3/16" in 10' or 1/8" in 6'. All paint, varnish, oil, wax, finishes and any other bond inhibiting substances must be removed. Smooth or glazed surfaces must be abraded. Repair all joints and cracks with latex-based portland cement underlayment. Concrete sub-floors must be properly prepared according to the recommended practices detailed in the most recent version of document ASTM F-710. Never sand existing resilient flooring that could contain asbestos. Follow all Federal, State and Local regulations relating to the removal of in-place, asbestos containing material. Very porous sub-floors must be primed with AAT-570 Primer.

AAT-420 Premium Vinyl Plank and LVT Adhesive can be used over the following sub-floors with a maximum moisture emission rate of 6lbs/1000 sq. ft. /24 hours [ASTM F1869], a pH of 7.0- 10.0 [ASTM F710], and a maximum *in situ* RH of 85% [ASTM F2170]:

- Concrete above, on or below grade
- APA rated plywood underlayment
- Properly prepared gypsum cement
- Existing non-cushion back resilient floors that are well bonded, sound, smooth, and free of waxes, finishes, cleaners and any other bond inhibiting substances.

NOTE: Particleboard and OSB are **not** recommended underlayments. Strip or plank wood flooring, particleboard and OSB sub-floors should be covered with an approved plywood underlayment (minimum thickness of 3/4"). Before beginning installations with flooring types or over sub-floors not listed contact AAT Technical Services for recommendations. While some Luan plywood panels are widely marketed as "underlayments", there are a variety of qualities and species sold as such. Some varieties present severe problems when used as underlayments. Frequent problems noted are discoloration, indentation, bond failure, and underlayment delamination. AAT will not warrant the adhesive when applied over Luan plywood. AAT-420 cannot be used if adhesive removers, solvent or chemical cleaners have been used. Regulations may require that existing flooring material or coatings be tested to determine the asbestos content. Refer to the instructions for removal and handling of resilient flooring published by the RFCI in the publication, *Recommended Work Practices for Removal of Resilient Floor Coverings*. The Resilient Floor Covering Institute may be reached thru their Website www.rfci.org or by calling 301-340-8580.

Typical Trowel and approximate coverage (depth x width x spacing):

1/32" x 1/16" x 1/32" – up to 250 sq.ft./gal.

Installation Recommendations: The building should be completely enclosed. All outside doors and windows should be properly installed with latching mechanisms in place. Adequate ventilation should be available. The HVAC system for the building should be operational and provide a consistent temperature of 65-85°F (air and sub-floor) and humidity levels should be between 35-65% for a minimum of 72 hours prior to the installation. These conditions must be maintained to ensure the long term success and performance of the installation.

1. Flooring and adhesive should be acclimated to the job site conditions for a minimum of 24 hours prior to the installation.
2. Be familiar with the recommendations and any special instructions from the flooring manufacturer before beginning the installation. Follow the flooring manufacturer's specific recommendations regarding seam sealing.
3. Refer to the information above for specific information regarding sub-floor preparation and site conditions.
4. When installing vinyl plank and tile (LVT) spread the adhesive with the appropriate trowel and allow the adhesive to dry to a clear, tacky state. Place the LVT or plank into the dry, pressure sensitive adhesive. Only spread as much adhesive as can be covered with the flooring in under six hours.¹
5. For use with solid vinyl sheet flooring, spread the adhesive with the appropriate trowel and allow it to develop tack. DO NOT allow the adhesive to "skin-over" or dry. Place the flooring into the "wet-tacky" adhesive while the adhesive is still wet enough to transfer to the back of the flooring.
6. Roll the installed flooring with a 75-100lb, three-section roller. Rolling should take place immediately after the flooring is placed into the adhesive.
7. It is recommended to minimize traffic over the newly installed flooring for at least 24 hours after the installation has been completed. Do not wash or clean the floor for five days after completion of the installation. To replace furniture and appliances use plywood panels to protect the flooring.

Specific Technical Data:

- A. Base: Acrylic-Ester Emulsion
- B. Color: White
- C. Clean-up: Remove wet adhesive with water and mild soap solution. Use AAT-197 Adhesive Remover to remove dried adhesive. Dried adhesive may be more difficult to remove; therefore, take care to remove adhesive from the surface of the flooring before it dries. DO NOT apply the solvent directly to the flooring material.
- D. Packaging: 4 gallon pails and one gallon pails (4 per case)
- E. Shelf-Life: One year from date of manufacture in un-opened container when stored at 70°F.
- F. Freeze-Thaw Stable to 15°F. Stability and spread-ability can be affected if allowed to freeze. Frozen material should be allowed to thaw at room temperature. DO NOT agitate or stir while frozen.
- G. VOCs: 0 g/l (Calculated per Ca. Rule 1168)
- H. Not recommended for exterior installations.

NOTE: We recommend installers follow the guidelines set forth in the flooring manufacturer's specific recommendations. Before placing the flooring, the adhesive must be allowed an open or dwell time appropriate for the flooring product, jobsite and sub-floor conditions. ¹AAT-420 has an extended working time of up to six hours after the initial drying if the area is kept dust free. It is extremely important to maintain recommended notch depth, width and spacing. The proper notch depth is that which will produce adhesive ridges that affect a 100% transfer to both the substrate and the backing of the flooring to include the inner recesses of the texture of the back.

August 25, 2017 [replaces November 11, 2016]





Safety Data Sheet

Print Date: May 13, 2015

1. Identification

- **Product Name:** AAT-420
- **Product Use:** Premium Vinyl Plank and LVT Adhesive
- **Manufacturer:** Advanced Adhesive Technologies
424 South Spencer Street
Dalton, GA 30721
800-228-4583
- **Emergency telephone number:** Chemtrec 1-800-424-9300

2. Hazard(s) identification

- **Classification of the substance or mixture**

This product does not meet the criteria for classification as hazardous under the GHS and 29 CFR 1910.1200

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NFPA rating (scale 0 – 4)**

Health = 1
Fire = 0
Reactivity = 0



- **HMIS-rating (scale 0 – 4)**
- Health = 1
- Fire = 0
- Physical Hazard = 0

3. Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Adhesive
- **Dangerous components:**
No hazardous/reportable components

Cas # 7732-18-5	Water	31-48%
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- **Trade name:** AAT-420

4. First-aid measures

- **Description of first aid measures**
- **After inhalation:** Overexposure, remove to fresh air and seek medical attention.
- **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:** Do not induce vomiting; immediately call for medical help.
- **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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substances or mixture:** Dried solids can burn and release toxic fumes and vapors.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

6. Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Dilute with water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)
Wash area thoroughly with water.
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- **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

7. Handling and storage

- **Precautions for safe handling**
Avoid prolonged or repeated contact with skin.
Avoid contact with eyes.
Wash thoroughly after handling.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by store rooms and receptacles:**
Store above 40°F. Freeze-thaw stable up to five cycles at 20°F.
- **Information about storage in one common storage facility:** Not required
- **Further information about storage conditions:** Protect product from freezing.
- **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

- **Control parameters**

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

This product does not contain any relevant quantities of materials with critical values that have to monitor at the workplace.

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

- **Exposure controls**

- **Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

- **Breathing equipment:** Not necessary if room is well-ventilated

- **Protection of hands:** Protective gloves

The glove material has to be impermeable and resistant to the product/the substance/ the preparation.

- **Material of gloves:** natural rubber

- **Eye protection:** Safety glasses with side shields

- **Body protection:** Protective work clothing

9. Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Heavy liquid
Color: white to light beige

- **Odor:** Acrylic

- **Odour threshold:** Not determined

- **pH-value at 20°C (68°F):** 7.5-9.5

- **Change in condition**

Melting point: Undetermined

Boling point: 212°F (100°C)

- **Flash point:** Not applicable

- **Flammability (solid, gaseous):** Not applicable

- **Ignition temperature:**

Decomposition temperature: Not determined

- **Auto igniting:** Product is not self igniting

- **Danger of explosion:** Product does not present an explosion hazard.

- **Flammable limits:**

Lower: Not determined

Upper: Not determined

- **Specific gravity at 20°C (68°F):** 1.02 – 1.14

- **Relative density:** Not determined

- **Vapour density:** Not determined

- **Evaporation rate:** Slower than ether

- **Solubility in/Miscibility with**

Water: Miscible in water, difficult to mix

- **Solvent content:**
 - Organic solvents: 0.0%
 - Water: 31-49%
- **Other information:** California VOC Compliance:
Solvent Free Product
SCAQMD Rule 1168: VOC compliant

10. Stability and reactivity

- **Reactivity**
- **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:** Carbon monoxide and carbon dioxide

11. Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** May irritate the skin
 - **on the eye:** May irritate the eye
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories:**

• IARC (International Agency for Research on Cancer)
None of the ingredients is listed
• NTP (National Toxicology Program)
None of the ingredients is listed
• OSHA-Ca (Occupational Safety & Health Administrations)
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.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Other adverse effects:** No further relevant information available.

13. Disposal Considerations

- **Waste treatment methods**
- **Recommendation:** Comply with current regulations

- **Uncleaned packaging:**
- **Recommendation:** Comply with current regulations.

14. Transport information

• Un-Number	
• DOT, ADR, AND, IMDG, IATA	Not regulated
• UN proper shipping name	
• DOT, ADR, AND, IMDG, IATA	Not regulated
• Transport Hazard class (es)	
• DOT, ADR, AND, IMDG, IATA	
• Class	Not regulated
• Packing group	
• DOT, ADR, IMDG, IATA	Not regulated
• Environmental hazards:	Not applicable
• Special precautions for user	Not applicable
• Transport in bulk according to Annex II of MARPOL73/45 and the IBC Code	Not applicable
• Transport/Additional information:	DOT, ADR, IMDG, IATA – Not regulated in transport. Not dangerous according to the above specifications.
• UN “Model Regulation”:	

15. Regulatory information

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

• Section 355 (extremely hazardous substances):
None of the ingredients is listed
• Section 313 (Specific toxic chemical listings):
None of the ingredients is listed
• TSCA (Toxic Substances Control Act):
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements,
• Proposition 65
• Chemicals known to cause cancer:
None of the ingredients is listed
• Chemicals know to cause reproductive toxicity:
None of the ingredients is listed

- **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from SDL requirements

- **Carcinogenicity categories**

• EPA (Environmental Protection Agency)
None of the ingredients is listed
• TLV (Threshold Limit Value established by ACHH)
None of the ingredients is listed
• NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed

16. Other information

Although the information and recommendations set forth in the SDS are presents in good faith and are believed to be correct as of the date of this SDS, AAT makes not representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will AAT or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

Department issuing SDS: Environment protection department

Creation date: May 1, 2015