



Advanced Adhesive Technologies, Inc.
Problemsolver® U.R.A.
Wood Flooring Adhesive

Problemsolver U.R.A., *Urethane Replacement Adhesive*, is a high solids, water resistant, patented Tri-Polymer adhesive, patent no. 5,721,302, formulated for the installation of engineered plank, parquet, acrylic impregnated wood flooring, bamboo, solid shorts ($\leq 3/4" \times 15"$) and pre-finished solid plank wood flooring. Problemsolver U.R.A. is an excellent adhesive for installing flat milled, solid plank up to one half inch thickness. Maximum dimensions for 1/2 inch solid flooring are 3"x 36". For solid plank with a thickness of less than 1/2 inch the maximum dimensions are 5"x72". For engineered hardwood flooring with dimensions greater than 7"x96" please contact our Technical Services Department. Problemsolver U.R.A. can be used with engineered bamboo flooring. For assistance with specific bamboo products and other exotics please contact our Technical Services Department. For a copy of the Limited Lifetime Warranty please contact Customer Service.

This specially formulated adhesive is easy to spread, easy to clean-up, and has a low-VOC content. The patented Tri-Polymer chemistry of the U.R.A. formula minimizes cupping or lifting of plank flooring. The excellent re-bond characteristic helps to minimize call backs from "popping" or "hollow spots." Problemsolver U.R.A. ensures a strong, water resistant bond. The formula is freeze-thaw stable and non-hazardous. This adhesive can be used on most commonly found sub-floors and brands of wood flooring designed for "glue-down" installations. Do not install solid wood flooring below grade. U.R.A. is not for use with wood flooring manufactured from Kempas.

Prior to the start of the installation the installer must determine that the job-site conditions meet or exceed all applicable standards of the wood flooring manufacturer and AAT. Installation of hardwood flooring should be one of the last jobs of any construction project.

Site Conditions:

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 wood flooring has been installed.

Adequate ventilation should be available. The HVAC system for the building should be operational. The flooring should not be exposed to extremes of temperature, humidity or moisture. The installation site should have a consistent temperature of at least 65°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.

Basements 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'. Moisture content of the sub-floor and the wood flooring should vary no more than 4%.

Concrete must be dry with moisture emission rates that do not exceed 3 lbs/1000 sq ft/24 hrs as measured by the Anhydrous Calcium Chloride Test (ASTM-F-1869-98). Concrete surface pH must not exceed 9. 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 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. Mechanical surface profiling is the preferred sub-floor preparation method. Mechanically profile the sub-floor to medium-grit sandpaper texture. Sanding or scouring 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.

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.

Engineered wood flooring may be installed over existing full spread sheet vinyl and vinyl tiles (non-cushioned) 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. The wear layer must remain intact. Resilient sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other bond inhibiting substances. These substances must be removed with the appropriate stripper/removers. Vacuum the entire area, mop thoroughly and allow to dry before proceeding. Existing flooring that has any texture must be leveled with a latex fortified embossing leveler. The substrate must be plumb and flat to within 3/16" in 10' and 1/8" in 6'. Imperfections and irregularities must be corrected before applying the adhesive. 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 or replace loose flooring products. Cork floors must have all sealers and surface treatments removed prior to applying the adhesive. *Never sand any resilient flooring that may contain asbestos fibers.*

Wood flooring may be installed over existing ceramic tile and terrazzo floors. All grout joints and broken tiles must be filled with a cementitious leveling compound. Surfaces should be cleaned and abraded to ensure a proper bond. Ceramic tiles must be securely fastened to the sub-floor. Loose tiles must be replaced or repaired. Ceramic and terrazzo sub-floors must be free from dust, dirt, grease, wax, sealers, oil and any other bond inhibiting substances.

Wood flooring may be installed over full spread, permanently bonded acoustic cork. Cork thickness should not exceed 1/4"(6mm) with a density between 11.4 and 13 lb. /cubic foot. Install cork in accordance with manufacturer's recommendations. Acoustic cork should be pure cork with a polyurethane binder.

Slabs with a radiant heating system are acceptable sub-floors for installing wood floors 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 the 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 wood flooring. Failure to ensure proper system design can result in excessive heat damage and wood shrinkage.

INSTALLATION:

1. Follow wood flooring manufacturer's instructions for layout, requirements for expansion space and any special precautions for installation.
2. Apply adhesive with the recommended trowel. (See below) Allow approximately 10 minutes open time before placing wood flooring. Working time for adhesive is approximately 45 minutes. If sub-floor is non-porous a longer open time will be required. Temperature and relative humidity will determine the actual amount of open time needed and the adhesive's working time. A 100% adhesive transfer rate to the wood flooring is required.
3. Lay wood flooring into wet adhesive. Occasionally lift a piece of flooring to assure that a 100% adhesive transfer is achieved. If proper transfer is not achieved, remove dried adhesive and re-apply the adhesive with the recommended trowel allowing the appropriate open time before proceeding. The use of non-transferring tape may be required to secure patterns and minimize movement until installation has been completed. Be sure to remove tape immediately after completion of the installation to avoid damaging the wood. Do not use masking tape.
4. Leave appropriate expansion space around the perimeter of the room and at any stationary objects.
5. If plank is bowed or warped, use weights or nails to ensure flooring is in full contact with the adhesive during the adhesive curing process. Excessively bowed or warped planks should be culled prior to installing the flooring.
6. Roll completed installation with a 100lb. roller in a north-south direction and then in an east-west direction to ensure adequate seating into the adhesive.
7. Problemsolver U.R.A. achieves a firm set in 8-10 hours. Light traffic can be allowed after this time. Furniture placement and heavy traffic should be restricted for a minimum of 12 hours.
8. Remove wet adhesive with a damp cloth. If adhesive dries, remove the adhesive with AAT-197 Adhesive Remover. Test AAT-197 on a scrap piece of flooring to ensure solvent does not effect the floors finish.

TROWEL RECOMMENDATIONS:

Engineered Plank 7/16" or thicker, bamboo plank, solid shorts and solid plank flooring

3/16" x 3/16" x 3/16" ≤ notch

35-40 sq. ft. /gal.

Engineered plank 3/8" and thinner

3/16" X 1/4" x 5/16" V notch

50-60 sq ft/gal

Parquet

1/8" x 1/8" x 1/8" ≤ notch

80-100 sq. ft. /gal.

****Note:** Notch dimensions are Width x Depth x Separation**

MATERIAL SAFETY DATA SHEET

SECTION I

COMPANY INFORMATION

AAT, Inc.
424 South Spencer Street
Dalton, GA 30720
Phone: 706-226-0610
Fax: 706-278-6207

MSDS INFORMATION

Prepared Date: 1-24-05
Prepared By: H. Burchett, Jr.

Medical Emergency Phone Number: 1-800-228-4583
Transport Emergency Phone Number: Chemtrec 1-800-424-9300

PRODUCT INFORMATION

Product Name/Number: Problemsolver U.R.A.
Product Description (product use): Tri-Polymer emulsion (Wood Flooring Adhesive)

SECTION II: COMPOSITION/INFORMATION ON INGREDIENTS

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Unlisted ingredients are not 'hazardous' per the OSHA standard and/or are not found on the WHMIS ingredient disclosure list.

Chemical/CAS Number	Percent	OSHA STEL	Cal. OSHA STEL	ACGIH TLV
VM & P Naphtha (64742-89-8)	1-2%	400 ppm	400 ppm	300 ppm

See Section 16 for additional information.

SECTION III: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

No specific warnings for normal use conditions.

POTENTIAL HEALTH EFFECTS

Eyes: Eye contact with liquid product will cause irritation.

Skin: Prolonged or repeated contact with liquid product may cause irritation.

Inhalation: Inhalation is not an anticipated route of exposure.

Ingestion: Not an anticipated route of exposure. Small amounts are not anticipated to be harmful.

Chronic: No anticipated chronic effects.

REGULATED CARCINOGEN STATUS:

This product is not listed as a carcinogen by NTP, IARC, ACGIH or OSHA.

Existing Health Conditions Affected by Exposure: No known effects on other illnesses.

SECTION IV: FIRST AID MEASURES

If in eye: Flush immediately with water for 15 minutes. Consult a physician if irritation persists.

If on skin: Wash affected area with soap and water. Launder contaminated clothing before reuse.

If vapors inhaled: Remove subject to fresh air.

If ingested: If person can swallow, give one glass of water or milk. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

SECTION V: FIRE FIGHTING MEASURES

Flash Point/Method: Non-flammable

Upper Explosive Limit/Lower Explosive Limit: Not applicable

Autoignition Temperature: Not applicable

Appropriate Extinguishers: Non-flammable in liquid state; use water spray, foam, dry chemical or carbon dioxide on dried product.

Special Fire Fighting Procedures: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

Unusual Fire and Explosion Hazards: There is the possibility of pressure buildup in closed containers when heated. Water spray may be used to cool the containers.

Hazardous Combustion Product: Incomplete combustion can yield low molecular weight hydrocarbons, carbon monoxide, nitrogen compounds, sulfur compounds

SECTION VI: ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds or water systems.

SECTION VII: HANDLING AND STORAGE

HANDLING INFORMATION: Wear appropriate protective equipment when working with this product.

STORAGE INFORMATION: Avoid temperature extremes in storage. Consult the Technical Data Sheet for specific storage instructions.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses to reduce the potential for eye contact; chemical safety goggles are appropriate if splashing or dusting is likely. Have eye washes available where eye contact can occur.

Skin Protection: Prevent prolonged or repeated contact by using rubber gloves and appropriate protective clothing. Launder contaminated clothing before reuse.

Respiratory Protection: Not normally required. Use NIOSH/MSHA approved respirator if conditions warrant.

Ventilation: General dilution ventilation.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Paste
Color:	Light Tan
Odor:	Mild
Odor Threshold:	Not established
Specific Gravity:	1.18
% Volatile by Weight:	10-18
pH:	8.8-9.10
Boiling Range:	Greater than 200° F (93° C)
Freezing/Melting Point:	Freeze Thaw Stability 15-20°F
Vapor Pressure:	Not established
Vapor Density:	Not established
Evaporation Rate:	Not established
Water/Oil Partition Coefficient:	Not established
VOC:	19 g VOC/liter of material (VOC theoretically determined using EPA Publication 450/3-84-019)
VOC, less water:	20 g VOC/liter of material, less water and exempt solvents (VOC theoretically determined using EPA Publication 450/3-84-019)

SECTION X: STABILITY AND REACTIVITY DATA

Stability: Stable

Incompatibility: Not established

Hazardous Decomposition: Nitrogen compound , Sulfur compounds

Hazardous Polymerization: Will not occur

SECTION XI: TOXICOLOGICAL INFORMATION

No data available

SECTION XII: ECOLOGICAL INFORMATION

No data available

SECTION XIII: DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. Hazardous Waste Regulations 40 CFR 261. Solidify and dispose of in an approved landfill. Consult state, local or provincial authorities for more restrictive requirements.

SECTION XIV: TRANSPORTATION INFORMATION

UNITED STATES DEPARTMENT OF TRANSPORTATION (DOT)

DOT Proper Shipping Name:	Adhesive, NMFC Item #4620, sub 5
DOT Hazard Class/I.D. Code:	None, None
DOT Label:	None
DOT Packaging Group:	None

It is our opinion that the information provided here may be used to transport this product in compliance with Canadian Transportation of Dangerous Goods.

SECTION XV: REGULATORY INFORMATION

FEDERAL

Toxic Substances Control Act (TSCA)

Section 8 (b) - Inventory Status

This product is in compliance with the Toxic Substances Control Act's Inventory requirements.

SARA TITLE III

Section 313: This product does not contain regulated levels of any toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372.

STATE REGULATIONS

California Proposition 65: This product contains chemical(s) known to the state of California to cause cancer (c) or reproductive (r) damage.

Benzene - 71-43-2

New Jersey- RTK Label Information - Naphtha Solvent - 64742-89-8

WHMIS IDENTIFICATION/OTHER INTERNATIONAL REGULATIONS

SECTION XVI: ADDITIONAL INFORMATION

HMIS RATING

Health-1 Flammability-0 Reactivity-0

See SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for personal protective equipment recommendations.

The information and recommendations set forth herein are believed to be accurate. Because some of the information is derived from information provided to the AAT, Inc. from its suppliers, and because the AAT, Inc. has no control over the conditions of handling and use, the AAT, Inc. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and the AAT, Inc. assumes no responsibility for use or reliance thereon. It is the responsibility of the use of AAT, Inc. products to comply with all applicable federal, state and local laws and regulations.