SAFETY DATA SHEET
This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

MANUFACTURER’S NAME
Advantage Coatings Technology

EMERGENCY TELEPHONE
Chemtrec U.S.-Canada: 800-424-9300
Chemtrec International: 703-527-3887
Unit B Information: 303-499-1310
Louisville, Colorado 80027-3054
Safety Data Sheet Competent Person: info@actfinish.com
Kevin Durling


PRODUCT NAME: TOP KNOT HARDENER PART B
FORMULA: Preparation/Mixture
PRODUCT USE: Hardwood Floor finish

Section 2: Hazards Identification
Regulation (EC) No 1272/2008

GHS Hazard Class
- Eye Irritation Category 2.
- Flammable Liquid – Category 4
- Skin Irritation – Category 2
- Specific Target Organ Toxicity – Single Exposure

Signal word: Warning

Hazard Statement:
- Causes serious eye irritation
- Combustible liquid
- May cause respiratory irritation
- May cause drowsiness or dizziness

Precautionary Statements:
- Prevention: Wear eye/face protection
- Wash hands thoroughly after handling.
- Keep away from heat, sparks, and open flames – NO smoking.
- Wear protective gloves/eye protection/face protection.
- Wear protective gloves
- Wash hands thoroughly after handling.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- In case of fire, use Foam, dry chemical, or carbon dioxide.
- IF ON SKIN: wash with plenty of soap and water.
- If skin irritation occurs, get medical advice/attention.
- Take off contaminated clothing and wash before reuse.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a POISON Center or doctor if you feel unwell.

Storage:
- Store upright in a well-ventilated place. Keep cool.
- Store upright in a well ventilated place.
- Keep container tightly closed.

Disposal:
- Waste from residues and unused products: Follow the waste disposal requirements of your state, or local authorities.

HAZARD CLASSIFICATION: Not classified as hazardous based on IATA, IMDG, and DOT.
FIRE AND EXPLOSION: Not considered flammable or combustible, but this product will burn if involved in a fire.

POTENTIAL HEALTH EFFECTS: <15% of mixture consists of ingredients of unknown acute toxicity.
HAZARD CLASSIFICATION: Not classified as hazardous based on IATA, IMDG, and DOT.

FIRE AND EXPLOSION: Not considered flammable or combustible, but this product will burn if involved in a fire.

POTENTIAL HEALTH EFFECTS: <15 % of mixture consists of ingredients of unknown acute toxicity

INGESTION: May be harmful if swallowed.

INHALATION: May be harmful if inhaled. Causes respiratory tract irritation.

SKIN CONTACT: May cause skin irritation. May be harmful if absorbed through skin.

EYE CONTACT: Eye irritation may result.

OTHER: None

CHRONIC EFFECTS OF OVEREXPOSURE: None

APPEARANCE: Clear liquid

NFPA Rating:

<table>
<thead>
<tr>
<th>Component</th>
<th>Health (Blue)</th>
<th>Flammability (Red)</th>
<th>Reactivity (Yellow)</th>
<th>Special (White)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Knot Part B</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>--</td>
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Section 3: Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>APPRX %</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
<th>CAS NO.</th>
<th>EINECS/ELINCS</th>
<th>DANGER SYMBOL</th>
<th>RISK PHRASE</th>
<th>DSL CANADA</th>
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<tbody>
<tr>
<td>P-series glycol ether</td>
<td>30 - 40</td>
<td>-----</td>
<td>-----</td>
<td>111109-77-4</td>
<td>N/N</td>
<td>-----</td>
<td>-----</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Aliphatic Polyisocyanate</td>
<td>60 - 70</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>N/N</td>
<td>-----</td>
<td>-----</td>
<td>N</td>
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</table>

Trade Secret (TS) Some items on this MSDS may be designated as trade secrets. Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13. The full text for all R-Phrases is shown in Section 16.

Manufacturer of Aliphatic Polyisocyanate recommended exposure limit: 0.5 mg/m3
Manufacturer of P-series glycol ether recommended exposure limit: 20 ppm TWA

Section 4: First Aid Measures

INHALATION: Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Get immediate medical attention.

SKIN CONTACT: Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

INGESTION: If swallowed do not induce vomiting, give large quantities of water to drink. Never give anything to an unconscious person. Get immediate medical attention.

Section 5: Fire-fighting Measures

FLASH POINT: 148 °F Minimum (Open cup)
FLAMMABLE LIMITS IN AIR (% by vol): Not measured
EXTINGUISHING MEDIA: Foam, Dry Chemical Powder, or Carbon Dioxide
SPECIAL FIREFIGHTING PROCEDURES: None
UNUSUAL FIRE AND EXPLOSION HAZARDS: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wear proper protective equipment as specified in Section 8: Exposure Controls/Personal Protection
Warn other workers of spill and contain spill.
Recover spill by using absorbent and sweeping up waste material.
In case of large spills, dike the spill, if possible. Call emergency services.
Place material into a chemical waste container.
Eliminate all sources of ignition and ventilate area.
Prevent spills or contaminated rinse water from entering sewers or watercourses.

DISPOSAL METHOD: disposal should be made in accordance with federal, state, and local regulations. Incineration is recommended.
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Section 7: Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Storage upright in a cool, dry place.
Keep container closed when not in use.
Prevent build-up of electro-static charges (e.g. by grounding).
Keep away from heat, sparks, flame, direct sunlight and other possible sources of ignition.
Do not store with peroxides and oxidizing materials.
Use only with adequate ventilation.
Do not inhale vapors.
Avoid spilling and releasing vapor.
Wear proper protective equipment when handling this material.
Avoid contact with skin, eyes or clothing.
Wash hands and face after handling this material.
Keep out of reach of children.
Follow all applicable local regulations for handling and storage.
Utilize chemical segregation.

INFORMATION ON EMPTIED CONTAINER
Dispose of this container according to local, state, and federal laws in your country.
Do not reuse this container. This container may be hazardous when emptied.
Residues will be explosive or flammable.
Do not puncture or cut this container.
Do not weld on or near this container.

SPECIFIC USES:
This product is intended for use as a hardwood floor finish.

Section 8: Exposure Controls/Personal Protection

VENTILATION: Always provide good general, mechanical room ventilation where this chemical/material is used.

SPECIAL VENTILATION CONTROLS: Use this material inside totally enclosed equipment, or use it with local exhaust ventilation at points where vapors can be released into the workspace air.

RESPIRATORY PROTECTION: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the CEN European Standards (EU). Use a NIOSH/MSHA or European Standard (EN) approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

PROTECTIVE GLOVES: Neoprene, butyl, or nitrile rubber gloves are recommended.

EYE PROTECTION: Recommend eye protection using safety glasses or goggles.

SKIN PROTECTION: Suitable protective clothing to prevent skin contact

WORK/HYGIENE PRACTICES: Avoid breathing vapor. Avoid contact with eyes. Wash hands after handling.

EXPOSURE LIMITS Reference Section 2

OTHER EQUIPMENT: Make safety shower, eyewash stations, and hand washing equipment available in the work area.

Section 9: Physical and Chemical Properties

APPEARANCE - COLOR: Clear
PHYSICAL STATE: Liquid
ODOR: Solvent Odor

<table>
<thead>
<tr>
<th>PRODUCT CRITERIA</th>
<th>PRODUCT CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODOR THRESHOLD</td>
<td>Not applicable for product</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable for product</td>
</tr>
<tr>
<td>FLASH POINT:</td>
<td>148 °F</td>
</tr>
<tr>
<td>LOWER EXPLOSIVE LIMIT; UPPER EXPLOSIVE LIMIT</td>
<td>Not applicable for product</td>
</tr>
<tr>
<td>FLAMMABILITY (Solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>EXPLOSIVE PROPERTIES</td>
<td>Not applicable for product</td>
</tr>
<tr>
<td>OXIDIZING PROPERTIES</td>
<td>Not applicable for product</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY (@25 °C):</td>
<td>1.06 Kg/L</td>
</tr>
<tr>
<td>EVAPORATION RATE:</td>
<td>Less than n-butyl acetate</td>
</tr>
<tr>
<td>% VOLATILE by VOLUME</td>
<td>30-35</td>
</tr>
<tr>
<td>PARTITION COEFFICIENT</td>
<td>Not applicable for product</td>
</tr>
</tbody>
</table>
Section 10: Stability and Reactivity

**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Avoid heat. Closed containers may explode due to build up of pressure.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide

**HAZARDOUS POLYMERIZATION:** Will not occur

Section 11: Toxicological Information

There is no toxicological information available for the product mixture.

<table>
<thead>
<tr>
<th>GHS Required Criteria</th>
<th>Toxicity Criteria</th>
<th>Toxicity Information</th>
<th>Comments</th>
<th>Chemical Constituent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>LD50 Oral Rat</td>
<td>&gt;5000 mg/kg</td>
<td></td>
<td>Polyisocyanate</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Rat</td>
<td>390-453 mg/kg 4 hours</td>
<td></td>
<td>Polyisocyanate</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td></td>
<td>Polyisocyanate</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral Rat</td>
<td>3300 mg/kg</td>
<td></td>
<td>P series glycol ethers</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td></td>
<td>P series glycol ethers</td>
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<tr>
<td></td>
<td>LC50 Inhalation Rat</td>
<td>&gt;792 ppm 4 hours</td>
<td></td>
<td>P series glycol ethers</td>
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<tr>
<td>Skin Corrosion/Irritation</td>
<td>Rabbit Draize test</td>
<td>Slightly</td>
<td></td>
<td>Polyisocyanate</td>
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<tr>
<td>Serious Eye Damage / Eye Irritation</td>
<td>Rabbit Draize test</td>
<td>Slightly</td>
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<td>Polyisocyanate</td>
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<tr>
<td>Respiratory or Skin Sensitization</td>
<td>No information is available.</td>
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<td></td>
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<td>Germ Cell Mutagenicity</td>
<td>No information is available.</td>
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<td></td>
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<tr>
<td>Carcinogenicity</td>
<td>Not listed</td>
<td>NTP</td>
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<td></td>
<td></td>
<td>Not listed</td>
<td>IARC</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Not listed</td>
<td>OSHA</td>
<td></td>
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<tr>
<td>Reproductive Toxicity</td>
<td>No information is available.</td>
<td></td>
<td></td>
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<tr>
<td>STOST – Single Exposure</td>
<td>Inhalation:</td>
<td>May cause respiratory irritation</td>
<td></td>
<td>P series glycol ethers</td>
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<tr>
<td>STOST – Repeated Exposure</td>
<td>No information is available.</td>
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<td></td>
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<td>Aspiration Hazard</td>
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<tr>
<td>Ames test</td>
<td>Negative</td>
<td>Polyisocyanate</td>
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</table>

STOST = Specific Target Organ Systemic Toxicity

**OTHER INFORMATION:**

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Section 12: Ecological Information
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<table>
<thead>
<tr>
<th>BIODEGRADATION:</th>
<th>Not readily biodegradable</th>
<th>Polyisocyanate</th>
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<tbody>
<tr>
<td>BIOACCUMULATION:</td>
<td>No information is available.</td>
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</tr>
<tr>
<td>ECO TOXICITY:</td>
<td>LC50 – Zebra fish &gt;100mg/l -96 hour Polysiocyanate</td>
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<tr>
<td></td>
<td>EC50 – Daphnia magna (Water flea) – &gt;100 mg/l – 24 hour Polysiocyanate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 – Desmodesmus subspicatus (green algae) – &gt;1000 mg/l – 72 hour Polysiocyanate</td>
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<tr>
<td>MOBILITY:</td>
<td>No information is available.</td>
<td></td>
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</tbody>
</table>

Note: Not all of the ingredients have been tested for Ecotoxicity.

Section 13: Disposal Considerations

WASTE FROM RESIDUES / UNUSED PRODUCTS:
Follow the waste disposal requirements of your country, state, or local authorities.

CONTAMINATED PACKAGING:
Recommend contaminated packaging material should be disposed of as stated above for residues and unused product.

RINSATE: Do not dispose of rinse water containing product in a sanitary sewer system or storm water drainage system.

Section 14: Transport Information

DOT TRANSPORT: Non-bulk Not Regulated

ADR = International Carriage of Dangerous Goods by Road Not Regulated

RAIL TRANSPORT: Not Regulated

SEA TRANSPORT: IMDG Not Regulated

AIR TRANSPORT: IATA/ICAO Not Regulated

Section 15: Regulatory Information

Directive 1999/45/EC

LABEL FOR SUPPLY:

IRRITANT

RISK PHRASES:

R-Phrase: R36 Irritating to Eyes
R38 Irritating to Skin

S-Phrase: S24 Avoid contact with Skin
S25 Avoid contact with Eyes

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:
This product is in compliance with rules, regulations, and orders of TSCA. All components are listed on the TSCA Inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:
This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all MSDS’s that are copied and distributed for the material.
The Section 313 toxic chemicals contained in this product are: None

CALIFORNIA PROPOSITION 65:
This regulation requires a warning for California Proposition 65 chemical(s) under the statute.
The California proposition 65 chemical(s) contained in this product are: None
CALIFORNIA PROPOSITION 65:
This regulation requires a warning for California Proposition 65 chemical(s) under the statute.
The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:
Florida Toxic Substance(s): Not listed
Massachusetts’s hazardous substance(s): Homopolymer of hexamethylene Disocyanate Polyisocyanate based on HDI
Pennsylvania hazardous substance code(s): Not listed
New Jersey Homopolymer of hexamethylene Disocyanate
Illinois Not listed
Michigan Not listed

CANADA:
This MSDS/SDS will be non-compliant 3 years after the issue date. This MSDS contains all of the information required by the Controlled Products Regulations (CPR).

WHMIS-INFORMATION:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR), SOR/88-66, Current to February 20, 2012. The classes of controlled products listed in the CPR, Section 32, Part IV, have been reviewed and based on Professional Judgment this product has been determined to not be WHMIS controlled.

EUROPEAN UNION:
This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Directive 1999/45/EC, Regulation (EC) No 1272/2008 on classification, labeling and packaging (CLP) of substances and mixtures.
WGK: 0 (German Federal Water Management Act) (Water Hazard Class)

Section 16: Other Information
European Community Hazards Identification:
R: None
S: None
Danger Symbol(s): None

Revision Comments: Initial version February 5, 2014
Revision Number: 0
Information Sources: RTECS, REACH, OSHA 29CFR 1910.1200

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