** MATERIAL SAFETY DATA SHEET **

FRANKLIN INTERNATIONAL
2020 BRUCK STREET
COLUMBUS, OH 43207

Information Phone #: (800)-347-4583

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EMERGENCY PHONE NUMBER: 1-614-445-1441

TITEBOND WOOD GLUE (2213)

SECTION 1  PRODUCT IDENTIFICATION

PRODUCT NAME............ TITEBOND WOOD GLUE
CHEMICAL FAMILY.......... Polyvinyl alcohol ester blend with polyvinyl acetate.
MFG CODE.................. 2213
SALES CODE(S)............. 5061, 5062, 5063, 5064, 5065, 5066, 5067
DIVISION.................. Construction Adhesives & Sealants

SECTION 2  HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME(S)</th>
<th>CAS NUMBER</th>
<th>% WT</th>
<th>OSHA TWA</th>
<th>OSHA Ceiling</th>
<th>OSHA STEL</th>
<th>ACGIH TLV</th>
<th>ACGIH STEL</th>
<th>SEC 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>VINYL ACETATE</td>
<td>108-45-4</td>
<td>0.4</td>
<td>10 ppm</td>
<td>NA</td>
<td>20 ppm</td>
<td>10 ppm</td>
<td>20 ppm</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SECTION 3  PHYSICAL DATA (TYPICAL)

BORING POINT.......... 212°F
VISCOITY (cp.)......... 3200
VAPOR DENSITY (Air = 1)..... <1
SOLUBILITY IN WATER... Miscible
SPECIFIC GRAVITY (HOH = 1)..... 1.09
PERCENT VOLATILE (Wt.%)... 54
EVAPORATION RATE (HOH = 1)..... 1
pH....................... 4.5
APPEARANCE............ Light yellow opaque liquid.
ODOR.................... Faint characteristic odor.

SECTION 4  FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Test Method)...... >200°F (Setaflash)
FLAMMABILITY LIMITS......... NA
EXTINGUISHING MEDIA.......... Water for dried adhesive
SPECIAL FIRE FIGHTING PROCEDURES Wear NIOSH/MSHA approved self contained breathing apparatus (schedule 13)
UNUSUAL FIRE & EXPLOSION HAZARDS None

SECTION 5  HEALTH HAZARD DATA

ROUTES OF ENTRY.......... INGESTION: No
                          INHALATION: Yes
                          SKIN: No

POSSIBLE EFFECTS OF EXPOSURE...
SKIN CONTACT............. Will not be absorbed through the skin. In rare cases may cause a skin irritation.
EYE CONTACT............... Irritation
SECTION 5

HEALTH HAZARD DATA

INHALATION
When this product is warmed, inhalation of vapors can cause irritation of the upper respiratory tract and eyes. Overexposure may cause irritation or dizziness.

INGESTION
Effects not determined.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Not determined

CARCINOGENICITY
IARC Monographs: No
NTP: No
OSHA Regulated: No

NOTE
Two year animal tests (inhalation) at 50, 200 and 600 ppm of vinyl acetate monomer have shown that some animals in the 600 ppm group developed tumors. There was no tumor response at the 50 and 200 ppm groups. There is no evidence of human carcinogenicity.

SECTION 6

EMERGENCY AND FIRST AID PROCEDURES

*CONSULT PHYSICIAN IN ALL CASES*

SKIN
Wash with soap and water.

EYES
Rinse with running water for fifteen minutes.

INGESTION
Do not induce vomiting.

INHALATION
Remove patient to fresh air.

SECTION 7

REACTIVITY DATA

PRODUCT STABILITY
Stable

Conditions to Avoid
None

CHEMICAL INCOMPATIBILITY
Strong acids and strong bases

HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of carbon and monomer when burned

HAZARDOUS POLYMERIZATION
Will not occur

Conditions to Avoid
None

SECTION 8

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION
Wear suitable NIOSH/MSHA approved respirator where exposure limits are exceeded.

VENTILATION - Local Exhaust
At point where product is dried. Standard plant ventilation otherwise.

- Mechanical (Gen)
  Yes
- Special
  No
- Other
  No

PROTECTIVE GLOVES
Where repeated and prolonged contact can occur, the use of impervious gloves is recommended.

EYE PROTECTION
Splashproof safety eye protection

OTHER PROTECTIVE EQUIPMENT
None
SECTION 9  SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCEDURES. Clean up with suitable absorbent and place in an approved container. If product has dried, scrape up and place in approved container.

WASTE DISPOSAL METHOD. Disposal of product should comply with all applicable federal, state and local regulations.

CONTAINER DISPOSAL. Disposal of container should comply with all applicable federal, state and local regulations.

SECTION 10  SPECIAL PRECAUTIONS

SPECIAL HANDLING. None

KEEP FROM FREEZING. Yes. Product is freeze/thaw stable for five cycles.

KEEP OUT OF REACH OF CHILDREN. Yes

SECTION 11  REGULATORY INFORMATION

NEW JERSEY. Polyvinyl acetate emulsion 108-05-4 Water 7732-18-5 Polyvinyl alcohol 25213-24-5 Defoamer (no CAS#) Trade Secret 80100233-5015p

CALIFORNIA PROPOSITION 65. The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product may contain the following chemicals, "known to the State to cause cancer": acrylamide (<.02%), acetaldehyde (.03%) and arsenic (<.0005%).

CALIFORNIA RULE 1168. Calculated VOC (less water) = 10.7 g/l

HMIS RATING. Health 1 Flammability 0 Reactivity 0 Protective Equipment See Section 8

SECTION 12  SUPPLIER INFORMATION

Notice: While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Franklin International makes no warranty express or implied, with respect thereto and disclaims all liability from reliance thereon.