

Franklin International

MATERIAL SAFETY DATA SHEET

MSDS Name: Titebond Heavy Duty Construction Adhesive

MSDS Number: 5261

Revision Date: 2/26/01

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Titebond Heavy Duty Construction Adhesive
 CAS Number: none
 HMIS Hazard Rating: Health: 2 Fire: 3 Reactivity: 0
 Company Identification: Franklin International
 2020 Bruck Street
 Columbus OH 43207

Contact: Franklin Technical Services
 Telephone/Fax: (800) 877-4583 (614) 445-1493
 Emergency Phone (24 Hour): Franklin Security
 (614) 445-1300
 Chemtrec (24 Hour): (800) 424-9300
 Chemtrec International: (703) 527-3887

Product Class: solvent based
 Product Use: construction adhesive
 Product Code: 3195

Division: Construction Adhesives & Sealants

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS Number	Percent
acetone	67-64-1	13.35
hexane	110-54-3	13.18
toluene	108-88-3	8.31

OSHA PELs & ACGIH TLVs are listed in Section 8 where applicable.

SECTION 3 - HAZARD IDENTIFICATION

NOTE:
 Repeated and prolonged overexposure to the mixture of solvent(s) listed in Section 2 can result in systemic effects including permanent brain, nervous system, liver, and kidney damage. Intentional misuse by deliberately concentrating & inhaling the

contents may be harmful or fatal.

EMERGENCY OVERVIEW:

Product is a beige, medium viscosity mastic.

DANGER: EXTREMELY FLAMMABLE, VAPOR HARMFUL. CONTAINS ACETONE, TOLUENE AND HEXANE. Vapors can cause flash fire. Vapors can ignite explosively. Prevent buildup of vapors by opening all windows and doors to create cross-ventilation. Keep away from heat, sparks and open flame. Do not smoke. Turn off stoves, heaters and sparking electric motors. Keep container tightly closed when not in use. Avoid prolonged breathing of vapor. KEEP OUT OF THE REACH OF CHILDREN.

ROUTES OF ENTRY:

Ingestion: Yes
Inhalation: Yes
Skin: Yes
Eye: Yes

INHALATION:

Avoid breathing vapor or mists.
May cause headaches and dizziness.
High vapor concentrations are irritating to the nose, throat and lungs and can cause systemic effects.
Vapors can readily accumulate in confined or poorly ventilated areas.

INGESTION:

Ingestion is not a probable route of exposure. Harmful if swallowed.

SKIN:

May be harmful if absorbed through skin, may produce kidney, liver and central nervous system damage.
A single exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

EYE:

Substance may cause severe eye irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Preexisting neurological conditions, skin disorders, and respiratory disease.

CARCINOGENICITY:

IARC: No
NTP: No
OSHA: No

REPRODUCTIVE TOXICITY:

Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

TARGET ORGANS:

Prolonged or repeated overexposure may cause eye, skin, respiratory system, central nervous system, peripheral nervous system, liver and

kidney damage.

SECTION 4 - FIRST AID MEASURES

Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias (irregular beating) in persons exposed to high concentrations of hexane (e.g. in enclosed spaces or with deliberate abuse). If used, monitor heart action closely. Consider use of other drugs with less arrhythmogenic potential.

INHALATION:

Remove to fresh air. If difficulty persists seek medical attention.

INGESTION:

Call poison control center immediately. Follow their specific instructions. Do not induce vomiting.

SKIN:

Wash with soap and water. Contact a physician if irritation develops or persists.

EYE:

Hold eyelids apart and flush with plenty of water for at least 15 minutes. Seek medical attention.

SECTION 5 - FIRE-FIGHTING MEASURES

Flammability Class (OSHA)	IB
Flash Point:	< 0 F Setaflash
Explosive Range:	Lower explosive limit 1.2% Upper explosive limit 12.8%

Flammable liquid. Can form explosive mixtures at temperatures at or above the flashpoint

EXTINGUISHING MEDIA:

Use alcohol foam, carbon dioxide, or dry chemical when fighting fires involving this product.

HAZARDOUS COMBUSTION PRODUCTS:

Oxides of carbon may be released during combustion.

FIRE FIGHTING PROCEDURES:

Wear a NIOSH approved self contained breathing apparatus. Wear appropriate personal protective equipment.
Water may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:

Use inert absorbent to dike the spill. Keep away from drains.

CLEAN-UP:

If possible pump liquid into an approved container or spread absorbent over spill and shovel (use non-sparking equipment) product/ absorbent mixture into an approved container. If product has dried, scrape up and place in an approved container.

EMERGENCY MEASURES:

Isolate hazard area. Keep unnecessary and unprotected personnel from entering area. Wear all appropriate personal protection equipment (PPE) (see Section 8).

SECTION 7 - HANDLING AND STORAGE

HANDLING:

Avoid breathing vapors from the headspace of containers. Keep lid closed when not in use. Use only in well ventilated area. Follow all MSDS/label precautions even after container is emptied. Containers may retain product residues and vapors.

STORAGE:

Keep away from sources of ignition. Do not store above 110F. Store large quantities in buildings designed & protected for storage of NFPA Class 1-B flammable materials.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

	ACGIH TLV	ACGIH TLV-C	ACGIH STEL	OSHA STEL	OSHA PEL
acetone	500.00 PPM	N/est	1000.00 PPM	N/est	1000.00 PPM
hexane	50.00 PPM	N/est	N/est	N/est	500.00 PPM
toluene	50.00 PPM	N/est	N/est	N/est	200.00 PPM

The OSHA Ceiling for toluene is 300 ppm.

ENGINEERING CONTROLS:

Use local exhaust as needed to maintain occupational exposure limits. Maintain standard plant ventilation.

OTHER:

Facilities storing or utilizing any chemical should be equipped with an eyewash facility and a safety shower.

RESPIRATORY PROTECTION:

Where exposure limits may be exceeded select a NIOSH approved respirator with appropriate Protection Factor and cartridge for the specific contaminants. Follow requirements for respiratory protection in OSHA 1910.134.

EYE PROTECTION:

Chemical splash goggles (ANSI Z87.1 or approved equivalent).

SKIN PROTECTION:

Where skin contact can occur, wear impervious gloves.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form:	Mastic
Appearance/Color:	Beige
Odor:	Solvent
Solubility (in water):	Nil
pH Value:	Not Applicable
Boiling Range/Point:	121.°F
Evaporation Rate:	Faster than n-Butyl Acetate
% Volatile:	34.%
Specific Gravity:	1.08
VOC:	282 g/l

SECTION 10 - STABILITY AND REACTIVITY

Stability:	This product is stable
Hazardous Polymerization:	Hazardous polymerization will not occur

CONDITIONS TO AVOID:

Heat, sparks, open flame

INCOMPATIBILITY:

Strong oxidizing agents, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS:

Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acetone - Acute:

Acetone has a low order of acute and inhalation toxicity. Acetone is a slight skin irritant and moderately severe eye irritant. Excessive inhalation can cause headache, drunkenness, and weakness.

Acetone - Chronic:

Kidney damage and anemia can result from sustained high level exposure. Acetone is reported to potentiate the liver toxicity of chloroform.

Hexane - Acute:

Ingestion of hexane can cause nausea, vomiting, stomach pain, and diarrhea. Hexane can irritate the skin and eyes. Acutely, the most common toxic effects are central nervous system depression and chemical pneumonitis resulting from aspiration into the lungs following ingestion.

Hexane - Chronic:

Dermal irritation and central nervous system depression accompanied by peripheral system damage (polyneuropathy) are common traits of sustained overexposure.

Toluene - Acute:

Toluene is a central nervous system depressant and skin and mucous

membrane irritant. Severe dermatitis may result from its drying and defatting action. Toluene is an aspiration hazard causing chemical pneumonitis.

Toluene - Chronic:

Toluene can cause cardiac sensitization. It is toxic to the kidney, liver and can cause effects on the blood system such as increased clotting time.

Toluene may be harmful to the human fetus based on positive test results in laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

SECTION 12 - ECOLOGICAL INFORMATION

This formulation has not been tested for environmental effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Disposal of this product must comply with all applicable federal, state and local regulations.

CONTAINER DISPOSAL:

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

SECTION 14 - TRANSPORT INFORMATION

For any 10.5-ounce size of this product and for all 29-ounce to 1 gallon sizes of this product not shipped by air:

DOT:

UN Number: None
UN Pack Group: Not applicable
UN Class: ORM-D
Shipping Name: Consumer Commodity

AIR:

UN Number: ID8000
UN Pack Group: Not applicable
UN Class: 9
ICAO/IATA Class: 9
Shipping Name: Consumer Commodity

MARITIME:

UN Number: None
UN Pack Group: Not applicable
UN Class: Not applicable
IMDG Class: Limited Quantity; pg. 0149
Shipping Name: Dangerous Goods in Limited Quantities of Class 3

For air shipments of 29-ounce to 1 gallon sizes of this product or any shipment of this product in more than a one gallon container:

UN Number: UN1133
UN Pack Group: III
UN Class: 3
ICAO/IATA Class: 3

IMDG Class: 3
Shipping Name: Adhesives containing a Flammable Liquid

Packaging may not be approved for shipping by air. Please contact Franklin International for further information.

SECTION 15 - REGULATORY INFORMATION

SARA TITLE III SECTION 313:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

Chemical Name	CAS Number	Percent
hexane	110-54-3	13.18
toluene	108-88-3	8.31

- PROP 65 (TERATOGEN)

WARNING: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

Chemical Name	CAS Number	Percent
toluene	108-88-3	8.31

TSCA (Toxic Substances Control Act Inventory):

All components of this product are listed on the TSCA inventory except as exempted.

PENNSYLVANIA:

Hazardous components required to be listed at 1% or more:

- acetone; 2-propanone; 67-64-1
- toluene; benzene, methyl-; 108-88-3
- kaolin clay; kaolin; 1332-58-7
- hexane; hexane; 110-54-3
- crystalline silica; quartz; 14808-60-7

Non-hazardous ingredients required to be listed at 3%:

- petroleum hydrocarbon resin 68131-99-7; petroleum hydrocarbon resin 68132-00-3; styrene-butadiene rubber 9003-55-8

NEW JERSEY:

- clay 1332-58-7, petroleum hydrocarbon resin 68131-99-7, styrene-butadiene rubber 9003-55-8, acetone 67-64-1, hexane 110-54-3

SECTION 16 - OTHER INFORMATION

DISCLAIMER:

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