MSDS Name: TITEBOND HEAVY DUTY CONSTRUCTION ADHESIVE MSDS Number: 5262

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SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION Product Name: TITEBOND HEAVY DUTY CONSTRUCTION

ADHESIVE

CAS Number

none Hazard Rating: Health: 2 Fire: 3 Reactivity: 0

Company Identification:

Franklin International 2020 Bruck Street Columbus OH 43207

Contact: Telephone/Fax: Franklin Technical Services (800) 877-4583 (614) 445-1493 Franklin Security

Emergency Phone (24 Hour):

Chemtrec (24 Hour):

(614) 445-1300 (800) 424-9300

Product Class Product Code

Solvent mastic

3195

Division

Construction Adhesives & Sealants

SECTION II - COMPOSITION, 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 VIII where applicable. All components of this product are listed on the TSCA inventory except as exempted.

SECTION III - HAZARD IDENTIFICATION

Repeated and prolonged overexposure to the mixture of solvent(s) listed in Section II 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: INHALATION: Yes INGESTION: No SKIN: Yes

EYE: Yes

INHALATION:

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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.

Prolonged or repeated inhalation may cause lung damage.

May cause allergic reaction.

Vapors can readily accumulate in confined or poorly ventilated areas.

INGESTION:

No hazard expected in normal industrial use. Do not eat, drink or smoke around chemicals. Follow good hygiene practices.

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.

Substance may cause severe eye irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Medical conditions associated with target organs may be aggravated by exposure.

CARCINOGENICITY:

IARC: No OSHA:

TARGET ORGANS:

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

SECTION IV - FIRST AID MEASURES

INHALATION:

Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen by trained personnel.

Call poison control center immediately. Follow their specific instructions. Do not induce vomiting. Aspiration into lungs may cause chemical pneumonitis.

SKIN:

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

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

SECTION V - FIRE-FIGHTING MEASURES Flammability Class (OSHA) IB

Flash Range:

Less than 0 F Setaflash

Explosive Range:

Lower explosive limit 1.2% Upper explosive limit 12.8%

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

EXTINGUISHING MEDIA:

Use alcohol foam, carbon dioxide, or water spray when fighting fires

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involving this product.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon may be released during combustion.

FIRE FIGHTING PROCEDURES:

Wear a NIOSH/MSHA approved self-contained breathing apparatus.

SECTION VI - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES:

Use suitable absorbent to dike the spill.

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 VIII).

SECTION VII - HANDLING & STORAGE

HANDLING:

HANDLING:
Open container in well ventilated area.
Avoid breathing vapors from the headspace of containers.
Empty drums should be completely drained, properly bunged and promptly returned to a reconditoner, or properly disposed of.
Keep lid closed when not in use.
Wash hands before eating.
Remove contaminated clothing and wash before reuse.
Use only in well ventilated area.
Always use with positive cross-ventilation.
Follow all MSDS/label precautions even after container is emptied.
Containers may retain product residues and vapors.
Avoid prolonged or repeated contact with the skin.

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.

PRECAUTIONARY STATEMENT:
Keep out of the reach of children.
DANGER: EXTREMELY FLAMMABLE, VAPOR HARMFUL. Vapors can cause flash
fire. Contains acetone, toluene and hexane. Vapors may 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 away from all sources of ignition until all
vapors are gone. Keep container tightly closed when not in use. Avoid
prolonged breathing of vapor. KEEP OUT OF THE REACH OF CHILDREN.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits
ACGIH TLV ACG ACGIH TLV-C ACGIH STEL OSHA STEL OSHA PEL

ACETONE

750.00 PPM N/est 1000.00 PPM N/est 1000.00 PPM

HEXANE

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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

ENGINEERING CONTROLS:

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

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

RESPIRATORY PROTECTION:

Where exposure limits are exceeded select a NIOSH/MSHA approved respirator with appropriate Protection Factor and cartridge for the specific containments. Follow requirements for respiratory protection in OSHA 1910.134.

EYE PROTECTION:

Wear splashproof safety eye protection if splashing or misting of product may occur.

SKIN PROTECTION:

Where repeated or prolonged contact can occur, wear impervious gloves.

SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

Form: Liquid

Appearance/Color: Beige Solvent Odor:

Solubility (in water): Nil

pH Value: Boiling Range: Evaporation Rate: Not Applicable 121.°F

Faster than n-Butyl Acetate

% Volatile Specific Gravity: VOC (California Rule 1168) 1.08 282 g/l

SECTION X - STABILITY & REACTIVITY

Stability: This product is stable

Hazardous Polymerization: Hazardous polymerization will not occur

CONDITIONS TO AVOID: Heat, sparks, open flame

INCOMPATIBLITY:

Water based materials

HAZARDOUS DECOMPOSITION PRODUCTS:

Not applicable

SECTION XI - 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

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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.

SECTION XII - ECOLOGICAL INFORMATION

This formulation has not been tested for environmental effects.

SECTION XIII - 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 XIV - TRANSPORT INFORMATION

UN1133 UN Number UN Pack Group UN Class III

ICAO/IATA Class IMDG Class Shipping Name 3,1 (see note *)

3.1, pg 3102 ADHESIVES, containing a flammable liquid

* Packaging is not approved for shipping by air. Please contact Franklin International for further information.

SECTION XV - 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.
CAS Number Percent

TOLUENE 108-88-3 8.31

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PENNSYLVANIA:

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 XVI - OTHER INFORMATION

REVISION SUMMARY:

MSDS revised to follow 16 section format.

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.