

# Franklin International

## Safety Data Sheet

### Titebond II Extend

#### Section 1. Identification

<b>GHS product identifier</b>	: Titebond II Extend
<b>Physical state</b>	: Liquid.
<b>Address</b>	: Franklin International 2020 Bruck Street Columbus OH 43207
<b>Contact person</b>	: Franklin Technical Services
<b>Telephone</b>	: (800) 877-4583
<b>In case of emergency</b>	: Franklin Security (614) 445-1300
<b>e-mail address of person responsible for this SDS</b>	: SDS@FranklinInternational.com
<b>Reference number</b>	: 4295
<b>Product code</b>	: 4134
<b>Date of revision</b>	: 2/16/2026
<b>Safety Data Sheets are available online at</b>	: www.FranklinInternational.com
<b>Chemtrec (24 Hour)</b>	: (800) 424 - 9300
<b>Chemtrec International</b>	: +1 703-741-5970
<b>Chemical family</b>	: Adhesive.

#### Relevant identified uses of the substance or mixture and uses advised against

##### Identified uses

Adhesive.

##### Uses advised against

Not applicable.

#### Section 2. Hazards identification

<b>OSHA/HCS status</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
<b>Classification of the substance or mixture</b>	: Not classified.
<b>GHS label elements</b>	
<b>Signal word</b>	: No signal word.
<b>Hazard statements</b>	: No known significant effects or critical hazards.
<b>Precautionary statements</b>	
<b>Prevention</b>	: Not applicable.
<b>Response</b>	: Not applicable.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: Not applicable.

## Section 2. Hazards identification

- Hazards not otherwise classified** : None known.
- Hazards identified when used** :  No known significant effects or critical hazards.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	Synonyms	%	Identifiers
<input checked="" type="checkbox"/> Aluminum chloride (AlCl <sub>3</sub> ), hydrate (1:6)	Aluminium chloride, hexahydrate; Aluminum chloride (AlCl <sub>3</sub> ), hexahydrate; Aluminium chloride hexahydrate; Aluminum chloride, hexahydrate; Aluminum chloride hexahydrate; Aluminum trichloride hexahydrate; Aluminium trichloride hexahydrate; Aluminium chloride-6-hydrate,extra pure	≥0.5 - ≤1.5	CAS: 7784-13-6
vinyl acetate	Acetic acid ethenyl ester; Acetic acid, ethenyl ester; Acetic acid, vinyl ester; Ethenyl acetate; vinyl acetate monomer; Vinyl ethanoate; Ethenyl ethanoate; 1-Acetoxyethylene; VAC; acetic acid vinyl ester; 1-acteoxyethylene	≥0.1 - ≤1	CAS: 108-05-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if needed. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if needed.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if needed.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : This product may irritate eyes upon contact.

## Section 4. First aid measures

- Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  
**Specific treatments** : No specific treatment.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.  
**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** :  Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.  
**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** :  Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 10 to 32°C (50 to 89.6°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Aluminum chloride (AlCl <sub>3</sub> ), hydrate (1:6) vinyl acetate	<p>None.</p> <p><b>NIOSH REL (United States, 10/2020)</b> CEIL 15 minutes: 4 ppm. CEIL 15 minutes: 15 mg/m<sup>3</sup>.</p> <p><b>CAL OSHA PEL (United States, 1/2025)</b> STEL 15 minutes: 45 mg/m<sup>3</sup>. STEL 15 minutes: 15 ppm. TWA 8 hours: 30 mg/m<sup>3</sup>. TWA 8 hours: 10 ppm.</p> <p><b>OSHA PEL 1989 (United States, 3/1989)</b> TWA 8 hours: 10 ppm. TWA 8 hours: 30 mg/m<sup>3</sup>. STEL 15 minutes: 20 ppm. STEL 15 minutes: 60 mg/m<sup>3</sup>.</p> <p><b>ACGIH TLV (United States, 1/2025) A3.</b> TWA 8 hours: 10 ppm. TWA 8 hours: 35 mg/m<sup>3</sup>. STEL 15 minutes: 15 ppm. STEL 15 minutes: 53 mg/m<sup>3</sup>.</p>

#### Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

## Section 8. Exposure controls/personal protection

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of product use. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Color** : White to yellowish. [Light]
- Odor** : Characteristic. [Slight]
- Odor threshold** : Not available.
- pH** : 3
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 98.889°C (210°F)
- Flash point** : Closed cup: >93.3°C (>199.9°F) [Product does not sustain combustion.]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- VOC (less water, less exempt solvents)** : 1.86 g/l
- Vapor pressure** :

## Section 9. Physical and chemical properties

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3				

**Relative vapor density** : Not available.

**Relative density** : 1.11

**Solubility(ies)** :

Media	Result
cold water	Partially soluble
hot water	Partially soluble

**Solubility in water** : Not available.

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : Not applicable.

**Decomposition temperature** : Not available.

**Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): Not available.

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : No specific data.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

##### **Product/ingredient name**

Aluminum chloride (AlCl<sub>3</sub>), hydrate (1:6)

vinyl acetate

##### **Result**

**Rat - Oral - LD50**

3311 mg/kg

**Rat - Oral - LD50**

2900 mg/kg

**Rabbit - Dermal - LD50**

2335 mg/kg

**Rat - Inhalation - LC50 Vapor**

11400 mg/m<sup>3</sup> [4 hours]

**Conclusion/Summary [Product]** : Not available.

#### Skin corrosion/irritation

##### **Product/ingredient name**

Aluminum chloride (AlCl<sub>3</sub>), hydrate (1:6)

##### **Result**

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 72 hours

Amount/concentration applied: 7500 ug l

## Section 11. Toxicological information

**Conclusion/Summary [Product]** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

### Serious eye damage/eye irritation

Not available.

**Conclusion/Summary [Product]** : Moderately irritating to eyes.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.

### Respiratory or skin sensitization

Not available.

### **Skin**

**Conclusion/Summary [Product]** : Not available.

### **Respiratory**

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Classification

Product/ingredient name	OSHA	IARC	NTP
Vinyl acetate	-	2B	-

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

## Section 11. Toxicological information

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

- Eye contact** : This product may irritate eyes upon contact.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### **Short term exposure**

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

#### **Long term exposure**

- Potential immediate effects** : Not available.  
**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : Not available.

- General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### **Acute toxicity estimates**

## Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Aluminum chloride (AlCl <sub>3</sub> ), hydrate (1:6) vinyl acetate	3311 2900	N/A 2335	N/A N/A	N/A N/A	N/A N/A

## Section 12. Ecological information

### Toxicity

#### Product/ingredient name

vinyl acetate

#### Result

##### Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 1 days

14 mg/l [96 hours]

Effect: Mortality

##### Acute - EC50

Daphnia

12.6 mg/l [48 hours]

##### Acute - EC50

Algae - *Pseudokirchnerella subcapitata*

8.81 mg/l [96 hours]

Effect: (growth rate)

##### Chronic - NOEC

Algae - *Pseudokirchnerella subcapitata*

1.58 mg/l [96 hours]

**Conclusion/Summary [Product]** : Not available.

### Persistence and degradability

Not available.

**Conclusion/Summary [Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
vinyl acetate	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
vinyl acetate	0.73	3.16	Low

### Mobility in soil

**Soil/Water partition coefficient** : Not available.

### Other adverse effects

No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.

## Section 15. Regulatory information

### U.S. Federal regulations

#### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Vinyl acetate	≥0.1 - ≤1	Yes.	1000	129	5000	644.8

**SARA 304 RQ** : Not applicable.

#### SARA 311/312

**Classification** : Not applicable.

#### Composition/information on ingredients

Name	%	Classification
Aluminum chloride (AlCl <sub>3</sub> ), hydrate (1:6)	≥0.5 - ≤1.5	SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
vinyl acetate	≥0.1 - ≤1	FLAMMABLE LIQUIDS - Category 2 CARCINOGENICITY - Category 2

## Section 15. Regulatory information

### SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Vinyl acetate	108-05-4	≥0.1 - ≤1
Supplier notification	Vinyl acetate	108-05-4	≥0.1 - ≤1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : None of the components are listed.  
**Pennsylvania** : None of the components are listed.

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

- China** : Not determined.  
**United States TSCA 8(b) inventory** : All components are active or exempted.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
Not classified.	

### History

- Date of printing** : 5/8/2026  
**Date of issue/Date of revision** : 2/16/2026  
**Date of previous issue** : 6/6/2025  
**Version** : 1

## Section 16. Other information

### Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

### References

- : Not available.

✔ Indicates information that has changed from previously issued version.

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.