Franklin International

Safety Data Sheet

Titebond PROvantage Landscape Adhesive

Section 1. Identification

GHS product identifier : Titebond PROvantage Landscape Adhesive

Physical state : Liquid

Address : Franklin International

2020 Bruck Street Columbus OH 43207

Contact person : Franklin Technical Services

Telephone : (800) 877-4583 **In case of emergency** : Franklin Security (614) 445-1300

e-mail address of person responsible for this SDS

: SDS@FranklinInternational.com

Reference number : 3714
Product code : 3121
Date of revision : 3/25/2025

Safety Data Sheets are available online at

: www.FranklinInternational.com

Chemtrec (24 Hour) : (800) 424 - 9300 **Chemtrec International** : +1 703-741-5970

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

Identified uses
Not applicable.

Uses advised against

Not applicable.

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

GHS label elements

Hazard pictograms







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Section 2. Hazards identification

Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor. Causes serious eye irritation.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Suspected of causing cancer. (inhalation)

Suspected of damaging fertility or the unborn child. (inhalation)

Causes damage to organs. (eyes) (oral)

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response

: IF exposed: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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 or attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Avoid contact with skin and clothing. Wash thoroughly after handling.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

Ingredient name	%	Identifiers
methyl acetate	≥25 - ≤50	CAS: 79-20-9
n-hexane	≤3	CAS: 110-54-3
methanol	≤3	CAS: 67-56-1
vinyl acetate	≤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.

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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. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

: Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

Skin contact

: Causes serious eye irritation.

Inhalation

: Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

: Defatting to the skin. May cause skin dryness and irritation.

Ingestion

: Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact

: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation

: Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact

: Adverse symptoms may include the following:

irritation dryness cracking

Ingestion : No specific data.

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Section 4. First aid measures

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

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media

: Do not use water jet.

Specific hazards arising from the chemical

: Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. 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). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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: -17 to 40°C (1.4 to 104°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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
methyl acetate	NIOSH REL (United States, 10/2020)
•	TWA 10 hours: 200 ppm.
	TWA 10 hours: 610 mg/m ³ .
	STEL 15 minutes: 250 ppm.
	STEL 15 minutes: 760 mg/m³.
	CAL OSHA PEL (United States, 5/2018)
	STEL 15 minutes: 760 mg/m³.
	STEL 15 minutes: 250 ppm.
	TWA 8 hours: 610 mg/m ³ .
	TWA 8 hours: 200 ppm.
	OSHA PEL (United States, 5/2018)
	TWA 8 hours: 200 ppm.
	TWA 8 hours: 610 mg/m³.
	OSHA PEL 1989 (United States, 3/1989)

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Section 8. Exposure controls/personal protection

TWA 8 hours: 200 ppm. TWA 8 hours: 610 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 760 mg/m³. ACGIH TLV (United States, 1/2024)

TWA 8 hours: 200 ppm. TWA 8 hours: 606 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 757 mg/m³.

NIOSH REL (United States, 10/2020)

TWA 10 hours: 50 ppm. TWA 10 hours: 180 mg/m³.

CAL OSHA PEL (United States, 5/2018)

Absorbed through skin. TWA 8 hours: 180 mg/m³. TWA 8 hours: 50 ppm.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 500 ppm. TWA 8 hours: 1800 ma/m³.

OSHA PEL 1989 (United States, 3/1989)

TWA 8 hours: 50 ppm. TWA 8 hours: 180 mg/m³.

ACGIH TLV (United States, 1/2024)

Absorbed through skin. TWA 8 hours: 50 ppm.

NIOSH REL (United States, 10/2020)

Absorbed through skin. TWA 10 hours: 200 ppm. TWA 10 hours: 260 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 325 mg/m³.

CAL OSHA PEL (United States, 5/2018)

Absorbed through skin.

STEL 15 minutes: 325 mg/m³. STEL 15 minutes: 250 ppm.

C: 1000 ppm.

TWA 8 hours: 260 mg/m³. TWA 8 hours: 200 ppm.

OSHA PEL (United States, 5/2018)

TWA 8 hours: 200 ppm. TWA 8 hours: 260 mg/m³.

OSHA PEL 1989 (United States, 3/1989)

Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 260 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 325 mg/m³.

ACGIH TLV (United States, 1/2024)

Absorbed through skin. TWA 8 hours: 200 ppm. TWA 8 hours: 262 ma/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 328 mg/m³.

NIOSH REL (United States, 10/2020)

CEIL 15 minutes: 4 ppm. CEIL 15 minutes: 15 mg/m³.

n-hexane

methanol

vinyl acetate

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Section 8. Exposure controls/personal protection

<u> </u>	•
	CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 45 mg/m³. STEL 15 minutes: 15 ppm. TWA 8 hours: 30 mg/m³. TWA 8 hours: 10 ppm. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 30 mg/m³. TWA 8 hours: 30 mg/m³. STEL 15 minutes: 20 ppm. STEL 15 minutes: 60 mg/m³. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 35 mg/m³. STEL 15 minutes: 15 ppm. STEL 15 minutes: 53 mg/m³.

Biological exposure indices

Ingredient name	Exposure indices
n-hexane	ACGIH BEI (United States, 1/2024) BEI: 0.5 mg/l, 2,5-hexanedion [in urine]. Sampling time: end of shift.
methanol	ACGIH BEI (United States, 1/2024) BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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: chemical splash goggles.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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Section 8. Exposure controls/personal protection

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. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

: 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. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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. [Paste.]

Color : Beige.

Odor : Solvent(s) [Strong]

Odor threshold : Not available.

Mot available.
Melting point/freezing point : Not available.
Boiling point or initial : 54.44°C (130°F)

boiling point and boiling

range

Flash point : Closed cup: -13°C (8.6°F) [Setaflash]

Evaporation rate : >1 (butyl acetate = 1)

Flammability : Flammable in the presence of the following materials or conditions: open flames,

sparks and static discharge and heat.

Lower and upper explosion

limit/flammability limit

VOC (less water, less

exempt solvents)

: Not available.

: 33.62 g/l

Vapor pressure : Vapor Pressure at 20°C Vapor

	Vapor Pressure at 20°C			Va	por pressur	e at 50°C
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
methyl acetate	171.01454	22.8		590.30018	78.7	

Relative vapor density : Not available.
Relative density : 1.21353

Solubility(ies) :

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not available.

Partition coefficient: n- : Not applicable.

octanol/water

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Section 9. Physical and chemical properties

Auto-ignition temperature

Ingredient name	°C	°F	Method
nexane	225	437	

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

. The product is stable.

reactions

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

Conditions to avoid

: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

: Reactive or incompatible with the following materials:

oxidizing materials

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 Result

methyl acetate Rat - Oral - LD50

>5 g/kg

Rabbit - Dermal - LD50

>5 g/kg

n-hexane Rat - Oral - LD50

15840 mg/kg

Rat - Inhalation - LC50 Gas.

48000 ppm [4 hours]

methanol Rabbit - Dermal - LD50

15800 mg/kg **Rat - Oral - LD50** 5600 mg/kg

Rat - Inhalation - LC50 Gas.

145000 ppm [1 hours] Rat - Inhalation - LC50 Gas.

64000 ppm [4 hours]

vinyl acetate Rat - Oral - LD50

2900 mg/kg

Rabbit - Dermal - LD50

2335 mg/kg

Rat - Inhalation - LC50 Vapor

11400 mg/m³ [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name Result

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Section 11. Toxicological information

methyl acetate Rabbit - Skin - Mild irritant

<u>Duration of treatment/exposure</u>: 24 hours <u>Amount/concentration applied</u>: 500 mg **Rabbit - Skin - Moderate irritant**

<u>Duration of treatment/exposure</u>: 24 hours <u>Amount/concentration applied</u>: 20 mg **Rabbit - Skin - Moderate irritant**

<u>Duration of treatment/exposure</u>: 24 hours Amount/concentration applied: 20 mg

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

cracking and/or dermatitis.

Serious eye damage/eye irritation

Product/ingredient name Result

methyl acetate Rabbit - Eyes - Moderate irritant

<u>Duration of treatment/exposure</u>: 24 hours Amount/concentration applied: 100 mg

n-hexane Rabbit - Eyes - Mild irritant

Amount/concentration applied: 10 mg

Rabbit - Eyes - Moderate irritant

<u>Duration of treatment/exposure</u>: 24 hours <u>Amount/concentration applied</u>: 100 mg **Rabbit - Eyes - Moderate irritant**<u>Amount/concentration applied</u>: 40 mg **Rabbit - Eyes - Severe irritant**Amount/concentration applied: 0.1 MI

Conclusion/Summary [Product]: This product may irritate eyes upon contact.

Respiratory corrosion/irritation

Not available.

methanol

methanol

Conclusion/Summary [Product] : High vapor concentrations can cause headaches, dizziness, drowsiness and

nausea and may lead to unconsciousness.

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
√nyl acetate	-	2B	-

Reproductive toxicity

Not available.

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Section 11. Toxicological information

Conclusion/Summary [Product]: Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name Result

₹tebond PROvantage Landscape Adhesive SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(eyes) (oral) - Category 1

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3

n-hexane SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3

methanol SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) -

Category 1

Specific target organ toxicity (repeated exposure)

Product/ingredient name Result

rhexane SPECIFIC TARGET ORGAN TOXICITY (REPEATED

EXPOSURE) (peripheral nervous system) (inhalation) - Category 1

Aspiration hazard

Product/ingredient name Result

n-hexane ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

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

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion : Causes damage to organs following a single exposure if swallowed. Can cause central

nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering

redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

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Section 11. Toxicological information

Ingestion : No specific data.

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

Short term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate :

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Result

Not available.

Result

Not available.

Conclusion/Summary [Product] : Not available.

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or

dermatitis.

Carcinogenicity : Suspected of causing cancer if inhaled. Risk of cancer depends on duration and level

of exposure.

Mutagenicity: No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child. (inhalation)

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	(Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
n-hexane methanol	15840 500	N/A 300	48000 64000	N/A 3	N/A N/A
vinyl acetate	2900	2335	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name Result

methyl acetate Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas* Age: 28 to 32 days; <u>Size</u>: 17.5 mm; <u>Weight</u>: 0.087 g

320 mg/l [96 hours] Effect: Mortality

n-hexane Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas* Age: 31 days; Size: 20.4 mm; Weight: 0.123 g

2500 μg/l [96 hours] Effect: Mortality

Acute - EC50 Crustaceans

3.9 mg/l [48 hours] **Acute - EC50**

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methanol

Section 12. Ecological information

Algae

0.89 mg/l [96 hours]

Chronic - NOEC

Fish - rainbow trout 2.8 mg/l [28 days]

Chronic - NOEC

Crustaceans

4.9 mg/l [21 days]

Acute - LC50 - Marine water

Crustaceans - Common shrimp, sand shrimp - Crangon crangon -

Adult

2500 mg/l [48 hours] Effect: Mortality

Acute - LC50 - Fresh water

Fish - Zebra danio - Danio rerio - Egg

Age: 12

290 mg/l [96 hours] Effect: Mortality

Acute - EC50 - Marine water

Algae - Green algae - Ulva pertusa

16.912 mg/l [96 hours] Effect: Reproduction

Chronic - NOEC - Marine water

Algae - Green algae - Ulva pertusa

9.96 mg/l [96 hours] Effect: Reproduction

Acute - LC50 - Fresh water

Fish - Fathead minnow - Pimephales promelas

Age: 1 days 14 mg/l [96 hours] Effect: Mortality Acute - EC50

Daphnia

: Not available.

12.6 mg/l [48 hours]

Acute - EC50

Algae - Pseudokirchnerella subcapitata

8.81 mg/l [96 hours] <u>Effect</u>: (growth rate) **Chronic - NOEC**

Algae - Pseudokirchnerella subcapitata

1.58 mg/l [96 hours]

Conclusion/Summary [Product]

Persistence and degradability

Not available.

vinyl acetate

Conclusion/Summary [Product] : Not available.

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

Bioaccumulative potential

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Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
methyl acetate	0.18	-	Low
n-hexane	4	501.187	High
methanol	-0.77	<10	Low
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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA Toxic hazardous waste "U" List

Ingredient	CAS#		Reference number
Methanol (I)	67-56-1	Listed	U154

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	UN1133	UN1133	UN1133	UN1133	UN1133	UN1133
UN proper shipping name	ADHESIVES, containing flammable liquid	ADHESIVES, containing flammable liquid	ADHESIVES, containing flammable liquid	ADHESIVES, containing flammable liquid	ADHESIVES, containing flammable liquid	ADHESIVES, containing flammable liquid
Transport hazard class(es)	3	3	3	3	3	3
Packing group	III	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.	No.

Additional information

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Titebond PROvantage Landscape Adhesive

Section 14. Transport information

DOT Classification : Remarks Limited quantity

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous

Goods Regulations: 2.18-2.19 (Class 3).

Remarks Limited quantity

Mexico Classification : Remarks Limited quantity

ADR/RID : <u>Tunnel code</u> (D/E)

Remarks Limited quantity

IMDG : Remarks Limited quantity

Section 15. Regulatory information

U.S. Federal regulations

SARA 302/304

Composition/information on ingredients

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

SARA 304 RQ : 1342426 lbs / 609461.4 kg [132673 gal / 502222 L]

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2

EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2

TOXIC TO REPRODUCTION - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

HNOC - Defatting irritant

Composition/information on ingredients

%	Classification
≥25 - ≤50	FLAMMABLE LIQUIDS - Category 2
	SKIN IRRITATION - Category 2
	EYE IRRITATION - Category 2A
≤3	FLAMMABLE LIQUIDS - Category 2
	SKIN IRRITATION - Category 2
	TOXIC TO REPRODUCTION - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Respiratory tract irritation) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
	(Narcotic effects) - Category 3
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED
	EXPOSURE) - Category 1
	ASPIRATION HAZARD - Category 1
≤3	FLAMMABLE LIQUIDS - Category 2
	ACUTE TOXICITY (oral) - Category 4
	ACUTE TOXICITY (dermal) - Category 3
	ACUTE TOXICITY (inhalation) - Category 3
	≥25 - ≤50 ≤3

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Section 15. Regulatory information

vinyl acetate	≤1	EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 FLAMMABLE LIQUIDS - Category 2 CARCINOGENICITY - Category 2
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SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	r-hexane	110-54-3	≤3
	methanol	67-56-1	≤3
	vinyl acetate	108-05-4	≤1
Supplier notification	r-hexane	110-54-3	≤3
	methanol	67-56-1	≤3
	vinyl acetate	108-05-4	≤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 : The following components are listed: METHYL ACETATE; HEXANE; METHANOL

New York : The following components are listed: Hexane; Methanol

New Jersey : The following components are listed: METHYL ACETATE; n-HEXANE; METHYL

ALCOHOL; VINYL ACETATE

Pennsylvania: The following components are listed: ACETIC ACID, METHYL ESTER; HEXANE;

METHANOL

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 : All components are listed or exempted.
United States TSCA 8(b) : All components are active or exempted.

inventory

Section 16. Other information

Procedure used to derive the classification

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Section 16. Other information

FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A Expert judgment	Classification	Justification	
CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 Expert judgment Expert judgment Expert judgment Expert judgment Expert judgment	EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -	Expert judgment Expert judgment Expert judgment Expert judgment Expert judgment Expert judgment	

History

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revision

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Version : 2.1

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.

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