

Franklin International

Safety Data Sheet

Titebond PROvantage Subfloor Adhesive

Section 1. Identification

| | |
|--|--|
| GHS product identifier | : Titebond PROvantage Subfloor 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 | : 3706 |
| Product code | : 5488 |
| Date of revision | : 7/30/2024 |
| 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) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |

GHS label elements

Hazard pictograms



Signal word : Danger

Section 2. Hazards identification

Hazard statements : Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer. (inhalation)
Suspected of damaging fertility or the unborn child. (inhalation)
May cause damage to organs through prolonged or repeated exposure. (inhalation)

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. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. 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 |
| toluene | ≤3 | CAS: 108-88-3 |
| methanol | ≤3 | CAS: 67-56-1 |
| vinyl acetate | ≤0.3 | 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. Continue to rinse for at least 10 minutes. Get medical attention.
- 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. 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** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : 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:
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.

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.

Section 4. First aid measures

- 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- 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 | <p>NIOSH REL (United States, 10/2020) TWA 10 hours: 200 ppm. TWA 10 hours: 610 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 760 mg/m³.</p> <p>CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 760 mg/m³. STEL 15 minutes: 250 ppm. TWA 8 hours: 610 mg/m³. TWA 8 hours: 200 ppm.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 610 mg/m³.</p> <p>OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 200 ppm. TWA 8 hours: 610 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 760 mg/m³.</p> <p>ACGIH TLV (United States, 7/2023) TWA 8 hours: 200 ppm. TWA 8 hours: 606 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 757 mg/m³.</p> |

Section 8. Exposure controls/personal protection

toluene

NIOSH REL (United States, 10/2020)

TWA 10 hours: 100 ppm.
 TWA 10 hours: 375 mg/m³.
 STEL 15 minutes: 150 ppm.
 STEL 15 minutes: 560 mg/m³.

OSHA PEL Z2 (United States, 2/2013)

TWA 8 hours: 200 ppm.
 CEIL: 300 ppm.
 AMP 10 minutes: 500 ppm.

CAL OSHA PEL (United States, 5/2018)

Absorbed through skin.
 STEL 15 minutes: 560 mg/m³.
 STEL 15 minutes: 150 ppm.
 C: 500 ppm.
 TWA 8 hours: 37 mg/m³.
 TWA 8 hours: 10 ppm.

OSHA PEL 1989 (United States, 3/1989)

TWA 8 hours: 100 ppm.
 TWA 8 hours: 375 mg/m³.
 STEL 15 minutes: 150 ppm.
 STEL 15 minutes: 560 mg/m³.

ACGIH TLV (United States, 7/2023) A4.

Ototoxicant.
 TWA 8 hours: 20 ppm.

methanol

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, 7/2023)

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

vinyl acetate

NIOSH REL (United States, 10/2020)

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

CAL OSHA PEL (United States, 5/2018)

STEL 15 minutes: 45 mg/m³.

Section 8. Exposure controls/personal protection

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: 10 ppm.
 TWA 8 hours: 30 mg/m³.
 STEL 15 minutes: 20 ppm.
 STEL 15 minutes: 60 mg/m³.
ACGIH TLV (United States, 7/2023) A3.
 TWA 8 hours: 10 ppm.
 TWA 8 hours: 35 mg/m³.
 STEL 15 minutes: 15 ppm.
 STEL 15 minutes: 53 mg/m³.

Biological exposure indices

| Ingredient name | Exposure indices |
|-----------------|--|
| toluene | ACGIH BEI (United States, 7/2023) BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift. BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift. BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek. |
| methanol | ACGIH BEI (United States, 7/2023) 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.

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 anti-static 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. [Light]
- Odor** : Solvent(s) [Strong]
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : 56.11°C (133°F)
- Flash point** : Closed cup: -13°C (8.6°F) [Setaflash]
- Evaporation rate** : >1 (butyl acetate = 1)
- Flammability** : Highly 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** : Not available.
- VOC (less water, less exempt solvents)** : 49.36 g/l
- Vapor pressure** :

| Ingredient name | Vapor Pressure at 20°C | | | Vapor pressure at 50°C | | |
|-----------------|------------------------|------|--------|------------------------|------|--------|
| | 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** : 1.27696
- Solubility(ies)** :

| Media | Result |
|------------|-------------|
| cold water | Not soluble |
| hot water | Not soluble |

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

Section 9. Physical and chemical properties

- Auto-ignition temperature** : 252°C (485.6°F)
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 : 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 | Species | Dose | Exposure |
|--|-----------------------|---------|-------------------------|----------|
| <input checked="" type="checkbox"/> methyl acetate | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | >5 g/kg | - |
| toluene | LC50 Inhalation Vapor | Rat | 49 g/m ³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| methanol | LC50 Inhalation Gas. | Rat | 145000 ppm | 1 hours |
| | LC50 Inhalation Gas. | Rat | 64000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | 15800 mg/kg | - |
| | LD50 Oral | Rat | 5600 mg/kg | - |
| vinyl acetate | LC50 Inhalation Vapor | Rat | 11400 mg/m ³ | 4 hours |
| | LD50 Dermal | Rabbit | 2335 mg/kg | - |
| | LD50 Oral | Rat | 2900 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|---------|-------|--------------------|-------------|
| <input checked="" type="checkbox"/> methyl acetate | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| toluene | Eyes - Mild irritant | Rabbit | - | 0.5 minutes 100 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 870 ug | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| | Skin - Mild irritant | Pig | - | 24 hours 250 uL | - |
| | Skin - Mild irritant | Rabbit | - | 435 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| methanol | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 | - |

Section 11. Toxicological information

| | | | | | |
|--|--|------------------|--------|----------------------------------|--------|
| | Eyes - Moderate irritant Skin - Moderate irritant | Rabbit Rabbit | - - | mg 40 mg 24 hours 20 mg | - - |
|--|--|------------------|--------|----------------------------------|--------|

Conclusion/Summary

- Skin** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Eyes** : This product may irritate eyes upon contact.
- Respiratory** : High vapor concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.

Respiratory or skin sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Toluene | - | 3 | - |
| vinyl acetate | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|------------------------------|
| Titebond PROvantage Subfloor Adhesive | Category 3 | - | Narcotic effects |
| toluene | Category 3 | - | Respiratory tract irritation |
| methanol | Category 3 | - | Narcotic effects |
| | Category 1 | - | - |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---------------------------------------|------------|-------------------|---------------|
| Titebond PROvantage Subfloor Adhesive | Category 2 | inhalation | - |
| toluene | Category 2 | - | - |

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|--------------------------------|
| toluene | 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.

Section 11. Toxicological information

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : 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:
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.

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.

- General** : May cause damage to organs through prolonged or repeated exposure if inhaled. 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 | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Toluene | N/A | N/A | N/A | 3 | N/A |
| methanol | 500 | 300 | 64000 | 3 | N/A |
| vinyl acetate | 2900 | 2335 | N/A | N/A | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---------------------------|--|--|----------|
| methyl acetate toluene | Acute LC50 320000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| | Acute EC50 >433 ppm Marine water | Algae - <i>Skeletonema costatum</i> | 96 hours |
| methanol | Acute EC50 11600 µg/l Fresh water | Crustaceans - <i>Gammarus pseudolimnaeus</i> - Adult | 48 hours |
| | Acute EC50 6000 µg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 5500 µg/l Fresh water | Fish - <i>Oncorhynchus kisutch</i> - Fry | 96 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 21 days |
| | Acute EC50 16.912 mg/l Marine water | Algae - <i>Ulva pertusa</i> | 96 hours |
| | Acute LC50 2500000 µg/l Marine water | Crustaceans - <i>Crangon crangon</i> - Adult | 48 hours |
| vinyl acetate | Acute LC50 3289 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> - Neonate | 48 hours |
| | Acute LC50 290 mg/l Fresh water | Fish - <i>Danio rerio</i> - Egg | 96 hours |
| | Chronic NOEC 9.96 mg/l Marine water | Algae - <i>Ulva pertusa</i> | 96 hours |
| | Acute EC50 8.81 mg/l | Algae - <i>Pseudokirchnerella subcapitata</i> | 96 hours |
| | Acute EC50 12.6 mg/l | Daphnia | 48 hours |
| | Acute LC50 10000 to 100000 µg/l Marine water | Crustaceans - <i>Crangon crangon</i> - Larvae | 48 hours |
| | Acute LC50 14000 µg/l Fresh water | Fish - <i>Pimephales promelas</i> | 96 hours |
| | Chronic NOEC 1.58 mg/l | Algae - <i>Pseudokirchnerella subcapitata</i> | 96 hours |

Persistence and degradability

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

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|------|-----------|
| methyl acetate | 0.18 | - | Low |
| toluene | 2.73 | 90 | Low |
| methanol | -0.77 | <10 | Low |
| vinyl acetate | 0.73 | 3.16 | Low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : 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







Section 13. Disposal considerations

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 # | Status | Reference number |
|-------------------------|--------------|------------------|------------------|
| Toluene Methanol (l) | - 67-56-1 | Listed Listed | U220 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 | II |
| Environmental hazards | No. | No. | No. | No. | No. | No. |

Additional information

TDG Classification : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3).

ADR/RID : **Tunnel code** (D/E)

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 | ≤0.3 | Yes. | 1000 | 129 | 5000 | 644.8 |

SARA 304 RQ : 1969384 lbs / 894100.3 kg [184967.7 gal / 700178.8 L]

SARA 311/312

Section 15. Regulatory information

Classification : FLAMMABLE LIQUIDS - Category 2
 EYE IRRITATION - Category 2A
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 HNOC - Defatting irritant

Composition/information on ingredients

| Name | % | Classification |
|----------------|-----------|---|
| methyl acetate | ≥25 - ≤50 | FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 |
| toluene | ≤3 | EYE IRRITATION - Category 2A FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 3 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 2 |
| methanol | ≤3 | ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 |
| vinyl acetate | ≤0.3 | FLAMMABLE LIQUIDS - Category 2 CARCINOGENICITY - Category 2 |

SARA 313

| | Product name | CAS number | % |
|--|---------------|------------|------|
| Form R - Reporting requirements | toluene | 108-88-3 | ≤3 |
| | methanol | 67-56-1 | ≤3 |
| | vinyl acetate | 108-05-4 | ≤0.3 |
| Supplier notification | toluene | 108-88-3 | ≤3 |
| | methanol | 67-56-1 | ≤3 |
| | vinyl acetate | 108-05-4 | ≤0.3 |

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; TOLUENE; METHANOL
New York : The following components are listed: Toluene; Methanol
New Jersey : The following components are listed: METHYL ACETATE; TOLUENE; METHYL ALCOHOL; VINYL ACETATE
Pennsylvania : The following components are listed: ACETIC ACID, METHYL ESTER; BENZENE, METHYL-; METHANOL

California Prop. 65

Section 15. Regulatory information

⚠ WARNING: This product can expose you to chemicals including Toluene and Methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

| Ingredient name | No significant risk level | Maximum acceptable dosage level |
|---------------------|---------------------------|---------------------------------|
| Toluene Methanol | - - | Yes. Yes. |

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) inventory : All components are active or exempted.

Section 16. Other information

Procedure used to derive the classification

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

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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

Section 16. Other information

References : Not available.

✔ Indicates information that has changed from previously issued version.

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