

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/13/2009

Reviewed on 01/13/2009

## 1 Identification of substance

- **Product details**
- **Trade name:** *PU 225 Wood Flooring Adhesive A*
- **Application of the substance / the preparation** *Adhesives*
- **Manufacturer/Supplier:**  
*Loba-Wakol LLC*  
*1604 N. Main St.*  
*Kannapolis, N.C. 28081, USA* (800) 230-6465
- **Information department:** *Industrial Safety Department*
- **Emergency information:** *Infotrac +1 352 323 3500*

## 2 Composition/Data on components

- **Chemical characterization**
- **Description:** *Adhesive*
- **Dangerous components:** *Void*

## 3 Hazards identification

- **Hazard description:** *Not applicable.*
- **Information pertaining to particular dangers for man and environment:**  
*The product does not have to be labelled due to the calculation procedure of international guidelines.*
- **Classification system:**  
*The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*
- **NFPA ratings (scale 0 - 4)**



Health = 0  
 Fire = 1  
 Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
- |            |   |                |
|------------|---|----------------|
| HEALTH     | 0 | Health = 0     |
| FIRE       | 1 | Fire = 1       |
| REACTIVITY | 0 | Reactivity = 0 |
- **GHS label elements** *Void*

## 4 First aid measures

- **General information:** *No special measures required.*
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:** *Generally the product does not irritate the skin.*
- **After eye contact:** *Rinse opened eye for several minutes under running water.*
- **After swallowing:** *Rinse out mouth and then drink plenty of water.*

## 5 Fire fighting measures

- **Suitable extinguishing agents:** *Use fire fighting measures that suit the environment.*

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- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Eye protection:** Goggles recommended during refilling.

### 9 Physical and chemical properties

#### · General Information

**Form:** Pasty  
**Color:** Light beige  
**Odor:** Weak, characteristic

#### · Change in condition

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 421°C (790°F)

- **Flash point:** 255°C (491°F)

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**Trade name: PU 225 Wood Flooring Adhesive A**

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- **Auto igniting:** *Product is not selfigniting.*
- **Danger of explosion:** *Product does not present an explosion hazard.*
- **Vapor pressure at 20°C (68°F):** *1 hPa (1 mm Hg)*
- **Density at 20°C (68°F):** *1.75 g/cm<sup>3</sup> (EN ISO 2811-1)*
- **Solubility in / Miscibility with Water:** *Not miscible or difficult to mix.*
- **Viscosity:**
  - Dynamic at 20°C (68°F):** *200000 mPas (ISO 2555)*

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
*No decomposition if used according to specifications.*
- **Dangerous reactions** *No dangerous reactions known.*
- **Dangerous products of decomposition:** *No dangerous decomposition products known.*

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** *No irritant effect.*
  - **on the eye:** *No irritating effect.*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**  
*The product is not subject to classification according to internally approved calculation methods for preparations:*

### 12 Ecological information

- **General notes:**  
*Water hazard class 1 (Self-assessment): slightly hazardous for water*  
*Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.*

### 13 Disposal considerations

- **Product:**
- **Recommendation:** *Smaller quantities can be disposed of with household waste.*
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*

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**Trade name: PU 225 Wood Flooring Adhesive A**

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### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**  
None of the ingredient is listed.
- **Section 313 (Specific toxic chemical listings):**  
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed or are not required to be listed on the TSCA inventory.
- **Proposition 65**
- **Chemicals known to cause cancer:**  
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**  
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity:**  
None of the ingredients is listed.
- **Carcinogenity categories**
- **IARC (International Agency for Research on Cancer)**  
1318-02-1 Zeolite: Group 3 Vol. 68 1997
- **NTP (National Toxicology Program)**  
None of the ingredients is listed.
- **Product related hazard informations:**  
The product is not subject to classification.  
Observe the general safety regulations when handling chemicals.  
The product is not subject to identification regulations according to directives on hazardous materials.
- **Safety phrases:** Keep out of the reach of children.
- **National regulations:**  
The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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- **VOC:**
- **VOC (USA): 0,0 g/l / 0,0 lb/gl**

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing MSDS:** Industrial Safety Department.

· **Contact:** Dr. Thomas Wieland

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)*

USA

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## 1 Identification of substance

- **Product details**

- **Trade name:** PU 225 Wood Flooring Adhesive B

- **Application of the substance / the preparation** Hardening agent/ Curing agent

- **Manufacturer/Supplier:**

Loba-Wakol LLC

1604 N. Main St.

Kannapolis, N.C. 28081, USA

(800) 230-6465

- **Information department:** Industrial Safety Department

## 2 Composition/Data on components


- **Chemical characterization**

- **Description:** Adhesive

- **Dangerous components:**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

50-100%

Danger:  3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1Warning:  3.1.1/4, 3.8/3

## 3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**

Harmful by inhalation.

Irritating to eyes, respiratory system and skin.

May cause sensitization by inhalation and skin contact.

Contains isocyanates. See information supplied by the manufacturer.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*2

Fire = 1

Reactivity = 0

- **GHS label elements**



Danger

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.4/1 - May cause an allergic skin reaction.

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**Warning**

3.1/4 - Harmful if inhaled.

3.8/3 - May cause respiratory irritation.

· **Prevention:**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

In case of inadequate ventilation wear respiratory protection.

· **Response:**

**IF ON SKIN:** Wash with plenty of soap and water.

**IF INHALED:** Remove to fresh air and keep at rest in a position comfortable for breathing.

**IF INHALED:** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a **POISON CENTER** or doctor/physician if you feel unwell.

Specific treatment (see label).

If skin irritation occurs: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

If experiencing respiratory symptoms: Call a **POISON CENTER** or doctor/physician.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

· **Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

· **Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

### 4 First aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Immediately remove any clothing soiled by the product.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

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**Trade name: PU 225 Wood Flooring Adhesive B**

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### 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Ensure adequate ventilation  
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
Protect from frost.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**  
**9016-87-9 diphenylmethanediisocyanate, isomers and homologues**  
PEL Short-term value: C 0.2 mg/m<sup>3</sup>, C 0.02 ppm  
REL Short-term value: C 0.2\* mg/m<sup>3</sup>, C 0.02\* ppm  
Long-term value: 0.05 mg/m<sup>3</sup>, 0.005 ppm  
\* 10min  
TLV 0.051 mg/m<sup>3</sup>, 0.005 ppm
- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Do not inhale gases / fumes / aerosols.  
 Avoid contact with the eyes and skin.
- **Breathing equipment:**  
 Not necessary if room is well-ventilated.  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:** Protective gloves
- **Material of gloves:** Butyl rubber, BR
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

### 9 Physical and chemical properties

#### · General Information

**Form:** Fluid  
**Color:** Brown  
**Odor:** Characteristic

#### · Change in condition

**Melting point/Melting range:** < 0°C (< 32°F)  
**Boiling point/Boiling range:** > 200°C (> 392°F)

- **Flash point:** > 200°C (> 392°F)
- **Ignition temperature:** 400°C (752°F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Vapor pressure at 20°C (68°F):** < 0.0001 mbar
- **Density at 20°C (68°F):** 1.23 g/cm<sup>3</sup> (EN ISO 2811-1)
- **Solubility in / Miscibility with Water:** Insoluble.
- **Viscosity:**  
**Dynamic at 20°C (68°F):** 90 mPas (ISO 2555)

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
 No decomposition if used according to specifications.
- **Dangerous reactions:** Reacts with alcohols, amines, aqueous acids and alkalis.

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- **Dangerous products of decomposition:**  
Danger of toxic pyrolysis products.  
Carbon dioxide

### 11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
**9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**  
Oral LD50 >15.000 mg/kg (rat)  
Dermal LD50 >5.000 mg/kg (rabbit)  
Inhalative LC50/4h 490 mg/l (rat)
- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
- **Sensitization:**  
Sensitizing effect through inhalation is possible with prolonged exposure.  
Sensitizing effect by skin contact is possible with prolonged exposure.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

### 12 Ecological information

- **Ecotoxicological effects:**
- **Aquatic toxicity:**  
**9016-87-9 diphenylmethanediisocyanate, isomeres and homologues**  
EC50/24h >100 mg/l (bacteriums)  
EC50/48h >1.000 mg/l (Daphnia magna)  
LC0/96h >1000 mg/l (Brachydanio rerio)  
LC50/96h >1.000 mg/l (Danio rerio)
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow product to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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**Trade name: PU 225 Wood Flooring Adhesive B**

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### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulations

- **Sara**
  - **Section 355 (extremely hazardous substances):**  
None of the ingredient is listed.
  - **Section 313 (Specific toxic chemical listings):**  
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues
  - **TSCA (Toxic Substances Control Act):**  
All ingredients are listed or are not required to be listed on the TSCA inventory.
  - **Proposition 65**
  - **Chemicals known to cause cancer:**  
None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:**  
None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**  
None of the ingredients is listed.
  - **Cancerogenity categories**
  - **IARC (International Agency for Research on Cancer)**  
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues: Group 3 Vol 19, Suppl 7 1987
  - **NTP (National Toxicology Program)**  
None of the ingredients is listed.
  - **Product related hazard informations:** The product has been marked in accordance with national laws.
  - **Hazard symbols:**
- 

Xn Harmful
- **Hazard-determining components of labelling:**  
diphenylmethanediisocyanate, isomeres and homologues

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**Trade name: PU 225 Wood Flooring Adhesive B**

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· **Risk phrases:**

*Harmful by inhalation.  
Irritating to eyes, respiratory system and skin.  
May cause sensitization by inhalation and skin contact.*

· **Safety phrases:**

*Keep out of the reach of children.  
Do not breathe fumes / aerosol  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Wear suitable protective clothing and gloves.  
In case of accident or if you feel unwell, seek medical advice immediately.*

· **Special labeling of certain preparations:**

*Contains isocyanates. See information supplied by the manufacturer.*

· **National regulations:**

*The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.*

· **Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.**

· **VOC:**

· **VOC (USA): 0,0 g/l / 0,0 lb/gl**

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing MSDS: Industrial Safety Department.**

· **Contact: Dr. Thomas Wieland**

· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)*

*LD50: Lethal dose, 50 percent*