

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008



## 1 Identification of substance

- **Product details**
- **Trade name:** *PU 280 Moisture Barrier*
- **Application of the substance / the preparation** *Primer/ Subcoating*
- **Manufacturer/Supplier:**  
*Aldo Products Company, Inc.*  
*1604 N. Main St.*  
*Kannapolis, N.C. 28081, USA* (800) 474-601-49
- **Information department:** *Industrial Safety Department*

## 2 Composition/Data on components

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


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*9016-87-9 diphenylmethanediisocyanate, isomeres and homologues* 50-100%  
*Danger:*  *3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1*  
*Warning:*  *3.1.1/4, 3.8/3*

## 3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**  
*The product has to be labelled due to the calculation procedure of international guidelines.*  
*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**

(Contd. on page 2)

USA

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

Trade name: PU 280 Moisture Barrier

(Contd. of page 1)

**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.

**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.

· **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.

(Contd. on page 3)

-USA-

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 2)

- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

### 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.
- **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.  
Mouth 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.  
Ensure adequate ventilation.

### 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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Protect from frost.  
Keep receptacle tightly sealed.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

-USA-

## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 3)

· **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.

· **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:** Tightly sealed goggles

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Color:</b>	Brown
<b>Odor:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** <0°C (<32°F)

**Boiling point/Boiling range:** 351°C (664°F)

· **Flash point:** 210°C (410°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):** <0.00001 hPa (<0 mm Hg)

· **Density at 20°C (68°F):** 1.17 g/cm<sup>3</sup> (EN ISO 2811-1)

· **Solubility in / Miscibility with**

**Water:** Hydrolized.

(Contd. on page 5)

USA

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 4)

- **Viscosity:**  
     *Dynamic at 20°C (68°F):*      300 mPas (ISO 2555)
- **Solvent content:**  
     *VOC content:*                      0.0 %

### 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.
- **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.  
     Sensitization possible through inhalation.  
     Sensitization possible through skin contact.
- **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

(Contd. on page 6)

USA

## Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 5)

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 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":** -

### 15 Regulations

- **Sara**
- **Section 355 (extremely hazardous substances):**  
All ingredients are 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)**  
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues: Group 3 Vol 19, Suppl 7 1987

(Contd. on page 7)

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 09/17/2008

Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 6)

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been marked in accordance with national laws.

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**



Xn Harmful

· **Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomeres and homologues

· **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

Avoid contact with skin.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Do not empty into drains.

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.**

### 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 internationale 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

(Contd. on page 8)

**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

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Reviewed on 09/17/2008

**Trade name: PU 280 Moisture Barrier**

(Contd. of page 7)

*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LD50: Lethal dose, 50 percent*

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