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1 Identification

· Trade name: PALL-X PURE Comp. A

· Application of the substance / the mixture Water-based, 2-component parquet seal (component A)

• Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Manufacturer: PALLMANN GmbH Im Kreuz 6 D-97076 Würzburg Germany Phone +49 931-27964-0 Fax +49 931-27964-50

Supplier: Uzin Utz North America, Inc. 14509 E. 33rd. Place, Unit G Aurora, CO 80011 Phone: +720-374-4810 Toll-Free: +1 866-505-4810 Fax: +1 720-374-2113

• Information department: Products Development Lab E-Mail: msds.info@uzin-utz.com

• Emergency telephone number: For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300 International, call +49 621 60 43 333

2 Hazard(s) identification

• *Classification of the substance or mixture The product is not classified, according to the Globally Harmonized System (GHS).*

· Additional information: Also observe SDS of component B.

- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- Hazard statements Void
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)

| HEALTH 0 | Health = 0 |
|--------------|------------------|
| FIRE 0 | Flammability = 0 |
| REACTIVITY 0 | Reactivity $= 0$ |

· Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe. NFPA is the National Fire Protection Association. HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe. HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

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· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

· vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with nonhazardous additions.

· Hazardous ingredients:

| | 0 | | | |
|-----------|--------|----------------------------------------------------------------|--------|--|
| CAS: 3459 | 0-94-8 | Dipropylene glycol monomethyl ether | 5-<10% | |
| | | Flam. Liq. 4, H227 | | |
| CAS: 5131 | | 3-butoxypropan-2-ol | 3-<5% | |
| | | 🚯 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Flam. Liq. 4, H227 | | |

• Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets. For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor.

• After swallowing: Do not induce vomiting; immediately call for medical help.

· Information for doctor:

- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed

Also observe SDS of component B.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO_2 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 arising from the substance or mixture No further relevant information available.

• Advice for firefighters

· Protective equipment:

No special measures required.

However, also observe SDS of component B.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Not required.

• Environmental precautions: Do not allow to enter sewers/ surface or ground water.

• Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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| | | (Contd. of page |
|-----------------------------------------------------------------|---------------------------------------|-----------------|
| Reference to oth | er sections | |
| See Section 7 for | information on safe handling. | |
| See Section 8 for information on personal protection equipment. | | |
| See Section 13 for disposal information. | | |
| Protective Action | n Criteria for Chemicals | |
| • PAC-1: | | |
| CAS: 34590-94-8 | B Dipropylene glycol monomethyl ether | 150 ppm |
| | | |
| • PAC-2: | | |
| 1110 21 | B Dipropylene glycol monomethyl ether | 1700* ppm |
| • PAC-2: CAS: 34590-94-8 • PAC-3: | Dipropylene glycol monomethyl ether | 1700* ppm |

7 Handling and storage

· Handling:

- · Precautions for safe handling
- *Wear suitable protective clothing, gloves and eye/face protection. Immediately remove all soiled and contaminated clothing.*
- Avoid contact with the eyes and skin.
- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Also observe SDS of component B.
- Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · 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.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

| CAS | : 34590-94-8 Dipropylene glycol monomethyl ether |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PEL | Long-term value: 600 mg/m³, 100 ppm Skin |
| REL | Short-term value: 900 mg/m³, 150 ppm Long-term value: 600 mg/m³, 100 ppm Skin |
| TLV | Short-term value: 909 mg/m³, 150 ppm Long-term value: 606 mg/m³, 100 ppm Skin |
| · Pers · Gen Imm | osure controls onal protective equipment: eral protective and hygienic measures: ediately remove all soiled and contaminated clothing. d contact with the eyes and skin |

Avoid contact with the eyes and skin.

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Safety Data Sheet acc. to OSHA HCS

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| Wear suitable protective clothing, gld Keep away from foodstuffs, beverage. Wash hands before breaks and at the Respiratory protection: Not required. Thorough ventilation should be ensur Protection of hands: | s and feed. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respiratory protection: Not required. Thorough ventilation should be ensur | |
| Not required. Thorough ventilation should be ensur | end of work. |
| Thorough ventilation should be ensur | |
| | red during and after the installation and drying time of the product. |
| | |
| | |
| Use gloves of stable mater | rial (e.g. Nitrile) - if necessary tricoted to improve the wearability. |
| Material of gloves | |
| Butyl rubber, BR | |
| Nitrile rubber, NBR Recommended thickness of the mater | ial > 0.5 mm |
| Penetration time of glove material | |
| The exact break trough time has to l | be found out by the manufacturer of the protective gloves and has to b |
| observed. Eye protection: | |
| | |
| | |
| Tightly sealed goggles | |
| | |
| | |
| Information on basic physical and c | hemical properties |
| General Information | |
| Appearance: Form: | Fluid |
| Color: | White |
| Odor: | Weak, characteristic |
| Odor threshold: | Not determined. |
| pH-value at 20 °C (68 °F): | 7-8 |
| Change in condition | |
| Melting point/Melting range: Boiling point/Boiling range: | Undetermined. Undetermined. |
| Flash point: | > 100 °C (> 212 °F) |
| - | Not applicable. |
| Flammability (solid, gaseous): | 270 °C (518 °F) |
| Flammability (solid, gaseous): Ignition temperature: | · · · · · · · · · · · · · · · · · · · |
| Flammability (solid, gaseous): Ignition temperature: Decomposition temperature: | Not determined. |
| Ignition temperature: | Not determined. Product is not selfigniting. |
| Ignition temperature: Decomposition temperature: | |
| Ignition temperature: Decomposition temperature: Auto igniting: | Product is not selfigniting. |
| Ignition temperature: Decomposition temperature: Auto igniting: Danger of explosion: Explosion limits: Lower: | Product is not selfigniting. Product does not present an explosion hazard. Not determined. |
| Ignition temperature: Decomposition temperature: Auto igniting: Danger of explosion: Explosion limits: Lower: Upper: | Product is not selfigniting. Product does not present an explosion hazard. Not determined. Not determined. |
| Ignition temperature: Decomposition temperature: Auto igniting: Danger of explosion: Explosion limits: Lower: | Product is not selfigniting. Product does not present an explosion hazard. Not determined. |
| Ignition temperature: Decomposition temperature: Auto igniting: Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: Density at 20 °C (68 °F): | Product is not selfigniting. Product does not present an explosion hazard. Not determined. Not determined. Not determined. 1.03 g/cm³ (8.6 lbs/gal) |
| Ignition temperature: Decomposition temperature: Auto igniting: Danger of explosion: Explosion limits: Lower: Upper: Vapor pressure: | Product is not selfigniting. Product does not present an explosion hazard. Not determined. Not determined. Not determined. |

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|------------------------------------------------|--------------------------------------------|--------------------|
| · Evaporation rate | Not determined. | |
| · Solubility in / Miscibility with | | |
| Water: | Fully miscible. | |
| · Partition coefficient (n-octanol/wa | ter): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not determined. | |
| Kinematic at 20 $^{\circ}C$ (68 $^{\circ}F$): | 20 s (DIN 53211/4) | |
| Other information | No further relevant information available. | |

10 Stability and reactivity

· Reactivity No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- *Incompatible materials:* No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- Specific symptoms in biological assay:
- · Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritant effect.
- · Sensitization: No sensitizing effect.
- · Additional toxicological information:

Also observe the safety data sheet of component B.

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

· Toxicity

- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.

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- \cdot Additional ecological information:
- · General notes: Do not allow product to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

• *PBT:* Not applicable.

· vPvB: Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

• Waste treatment methods

· Recommendation:

Do not allow product to reach sewage system.

Absorb smaller quantities with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust), allow to harden, then dispose of as construction waste.

Dispose of bigger amounts in accordance with Local Authority requirements.

· Uncleaned packagings:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

| · DOT, ADR, ADN, IMDG, IATA | Void |
|------------------------------------|---------------------------------------------------------------|
| · UN proper shipping name | _ |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · DOT, ADN, IMDG, IATA | |
| · Class | Void |
| · DOT, IMDG, IATA | Void |
| • Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport/Additional information | n: Not regulated as hazardous material according to the above |
| | specifications. |
| · UN ''Model Regulation'': | Void |

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· SARA (Superfund Amendments and Reauthorization Act)

· EPCRA Section 302 (Extremely Hazardous Substances):

None of the ingredient is listed.

· SARA Title III Section 313 (Toxic Release Inventory - TRI):

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act):

All ingredients are listed.

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

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· Chemicals known to cause cancer:

None of the ingredients is listed.

· Proposition 65 (California)

· 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.

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

CAS: 77-58-7 dibutyltin dilaurate

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

• GHS label elements Void

• Hazard pictograms Void

· Signal word Void

· Hazard statements Void

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.

· Contact:

Kelsey Quigg Phone: +1 720-374-4810 Mobile: +1 720-917-6110

• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

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

DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flam. Liq. 4: Flammable liquids – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

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1 Identification

· Trade name: PALL-X PURE Comp. B

• Application of the substance / the mixture Waterborne 2-component hardwood floor finish (Component B)

• Details of the supplier of the safety data sheet

· Manufacturer/Supplier: Manufacturer: PALLMANN GmbH Im Kreuz 6 D-97076 Würzburg Germany Phone +49 931-27964-0 Fax +49 931-27964-50

Supplier: Uzin Utz North America, Inc. 14509 E. 33rd. Place, Unit G Aurora. CO 80011 Phone: +720-374-4810 Toll-Free: +1 866-505-4810 Fax: +1 720-374-2113

· Information department: Products Development Lab E-Mail: msds.info@uzin-utz.com

• Emergency telephone number:

For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300 International, call +49 621 60 43 333

2 Hazard(s) identification

· Classification of the substance or mixture



| Acute Tox. 4 | H332 Harmful if inhaled. |
|-------------------|---------------------------------------------------------|
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |
| STOT SE 3 | H335 May cause respiratory irritation. |
| Flam. Liq. 4 | H227 Combustible liquid. |
| Aquatic Acute 3 | H402 Harmful to aquatic life. |
| Aquatic Chronic 3 | H412 Harmful to aquatic life with long lasting effects. |

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- · Hazard pictograms GHS07
- · Signal word Warning

· Hazard-determining components of labeling:

Aliphatic polyisocyanate 1,6-Hexamethylene diisocyanate homopolymer cyclohexyldimethylamine · Hazard statements Combustible liquid. Harmful if inhaled. May cause an allergic skin reaction.

May cause respiratory irritation.

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Harmful to aquatic life. | |
| Harmful to aquatic life with long lasting effects. | |
| Precautionary statements | |
| Keep away from heat/sparks/open flames/hot surfaces No smoking. | |
| Avoid release to the environment. | |
| Wear protective gloves/protective clothing/eye protection/face protection. | |
| If on skin: Wash with plenty of soap and water. | |
| <i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i> | |
| If skin irritation or rash occurs: Get medical advice/attention. | |
| <i>If experiencing respiratory symptoms: Call a poison center/doctor.</i> <i>Dispose of contents/container in accordance with local/regional/national/international re</i> | agulations |
| NFPA ratings (scale 0 - 4) | eguiations. |
| A A A A A A A A A A A A A A A A A A A | |
| Health = 2 | |
| Flammability = 2 | |
| 2 0 Reactivity = 0 | |
| HMIS-ratings (scale 0 - 4) | |
| HEALTH 2 Health = 2 | |
| FIRE 2 $Flammability = 2$ | |
| REACTIVITY Reactivity = 0 | |
| | |
| Other hazards | |
| <i>NFPA Rating Scale:</i> 0 = <i>Minimal;</i> 1 = <i>Slight;</i> 2 = <i>Moderate;</i> 3 = <i>Serious;</i> 4 = <i>Severe.</i> | |
| NFPA is the National Fire Protection Association. | |
| <i>HMIS Rating Scale:</i> 0 = <i>Minimal;</i> 1 = <i>Slight;</i> 2 = <i>Moderate;</i> 3 = <i>Serious;</i> 4 = <i>Severe.</i> | |
| HMIS®, the Hazardous Materials Identification System, is a registered mark of the | National Paint and |
| Coatings Association (NPCA). | |
| Results of PBT and vPvB assessment | |
| PBT: Not applicable. | |
| vPvB: Not applicable. | |

• **vPvB:** Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• Description: Mixture of the substances listed below with nonhazardous additions.

| · Hazardous ingredi | ents: | |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| CAS: 666723-27-9 | Aliphatic polyisocyanate 0 Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Acute 3, H402; Aquatic Chronic 3, H412 | 50-75% |
| CAS: 28182-81-2 | 1,6-Hexamethylene diisocyanate homopolymer � Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335 | 25-50% |
| CAS: 666723-27-9 | Aliphatic polyisocyanate Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ① Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Acute 3, H402; Aquatic Chronic 3, H412 | 5-<10% |
| CAS: 111109-77-4 | Dipropylenglycoldimethylether Flam. Liq. 4, H227 | 5-<10% |
| CAS: 98-94-2 | cyclohexyldimethylamine Flam. Liq. 3, H226; Acute Tox. 2, H310; Acute Tox. 3, H331; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302 | <0.5% |

· Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

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For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of 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: 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:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor.

• After swallowing: Do not induce vomiting; immediately call for medical help.

· Information for doctor:

· Most important symptoms and effects, both acute and delayed Allergic reactions

- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
- CO_{2} 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 arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

| · Personal precautions, protective equipment and emergency procedures |
|-----------------------------------------------------------------------|
| Wear protective equipment. Keep unprotected persons away. |
| Keep away from ignition sources |

• Environmental precautions: Do not allow to enter sewers/ surface or ground water.

• Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

· PAC-1:

CAS: 98-94-2 cyclohexyldimethylamine

· PAC-2:

CAS: 98-94-2 cyclohexyldimethylamine

· PAC-3:

CAS: 98-94-2 cyclohexyldimethylamine

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 $1 mg/m^3$

 11 mg/m^3

 $66 mg/m^3$

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7 Handling and storage

· Handling:

· Precautions for safe handling

Avoid contact with the eyes and skin. Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used. Wash hands before breaks and at the end of work.

- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- · Conditions for safe storage, including any incompatibilities

· 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: Keep receptacle tightly sealed.
- *Specific end use(s) No further relevant information available.*

8 Exposure controls/personal protection

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

· Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures:
- Avoid contact with the eyes and skin.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Wash hands before breaks and at the end of work.

• Respiratory protection:

Not necessary in well ventilated areas or areas with local exhaust ventilation (e.g. ex protected ventilation / evacuation equipment).

In case of prolonged exposition in poorly ventilated areas, e.g. in closed rooms, use ambient air-independent breathing apparatus.

- Not necessary. Ensure that room is well-ventilated during processing.
- Protection of hands:



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

• **Material of gloves** Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

· 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.

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Trade name: PALL-X PURE Comp. B

• Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

| · Information on basic physical and | chemical properties |
|------------------------------------------------------------|-----------------------------------------------|
| · General Information | |
| · Appearance: | |
| Form: | Fluid |
| Color: | Light yellow |
| • Odor: • Odor threshold: | Weak, characteristic Not determined. |
| | |
| · pH-value: | Not determined. |
| · Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |
| · Flash point: | 66 °C (150.8 °F) |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | >400 °C (>752 °F) |
| • Decomposition temperature: | Not determined. |
| · Auto igniting: | Product is not selfigniting. |
| • Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapor pressure: | Not determined. |
| • Density at 20 •C (68 •F): | 1.06 g/cm³ (8.85 lbs/gal) |
| · Relative density | Not determined. |
| · Vapor density | Not determined. |
| • Evaporation rate | Not determined. |
| · Solubility in / Miscibility with | |
| Water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| Dynamic: | Not determined. |
| <i>Kinematic at 20 •C (68 •F):</i> | 17 s (DIN 53211/4) |
| • Other information | No further relevant information available. |

10 Stability and reactivity

· Reactivity No further relevant information available.

· Chemical stability

• Thermal decomposition / conditions to be avoided:

From approx. $500 \, ^{\circ}F$ (260°C), polymerization and separation of CO₂.

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Trade name: PALL-X PURE Comp. B

· Possibility of hazardous reactions

The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

• Conditions to avoid No further relevant information available.

• Incompatible materials:

Uncontrolled exothermic reactions occur with amines and alcohols.

During storage, avoid moisture contamination.

· Hazardous decomposition products:

In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomer isocyanates, amines and alcohols may be produced.

11 Toxicological information

· Information on toxicological effects

| • | Acute | toxicity: |
|---|-------|-----------|
|---|-------|-----------|

· LD/LC50 values that are relevant for classification:

CAS: 666723-27-9 Aliphatic polyisocyanate

OralLD50 $\geq 5,000 \text{ mg/kg}$ (rat) (OECD test guideline 423)InhalativeLC50/4 h1.5 mg/l (rat) (OECD test guideline 403)

CAS: 28182-81-2 1,6-Hexamethylene diisocyanate homopolymerOralLD50>5,000 mg/kg (rat) (OECD test guideline 423)DermalLD50>2,000 mg/kg (rat) (OECD test guideline 402)

DermalLD50>2,000 mg/kg (rat) (OECD te.InhalativeLC50/4 h1.5 mg/l (rat)
Test atmosphere: dust/mist

Method: Expert judgement

CAS: 666723-27-9 Aliphatic polyisocyanate

Inhalative LC50/4 h 0.5 mg/l (rat) (OECD test guideline 403) Test atmosphere: dust/mist Method: Expert judgement

• Specific symptoms in biological assay:

· Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.

· Primary irritant effect:

• on the skin: Slightly irritant effect may occur.

• on the eye: No irritant effect.

• Sensitization: Sensitization possible through skin contact.

• Additional toxicological information:

Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish

• Additional ecological information:

· General notes:

Harmful to aquatic organisms Do not allow product to reach ground water, water course or sewage system. Also poisonous for fish and plankton in water bodies.

- · Results of PBT and vPvB assessment
- *PBT:* Not applicable.
- · vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

The product contains materials that are harmful to the environment. Do not allow product to reach ground water, water course or sewage system. Disposal should be in accordance with local, state or national legislation.

- · Uncleaned packagings:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information NA1993 $\cdot DOT$ · ADR, IMDG, IATA Void · UN proper shipping name $\cdot DOT$ *COMBUSTIBLE LIQUID, N.O.S (Hydrophilic aliphatic polyisocyanate)* · ADR, IMDG, IATA Void $\cdot DOT$ · Class 3 Combustible liquids 3 · Label Void · ADN/R Class: $\cdot DOT$ Ш · IMDG, IATA Void · Environmental hazards: No • Marine pollutant: · Special precautions for user Not applicable. (Contd. on page 8)

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· UN ''Model Regulation'': Void

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture • SARA (Superfund Amendments and Reauthorization Act)

· EPCRA Section 302 (Extremely Hazardous Substances):

None of the ingredient is listed.

· SARA Title III Section 313 (Toxic Release Inventory - TRI):

None of the ingredients is listed.

• **TSCA** (Toxic Substances Control Act): All ingredients are listed.

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

· Proposition 65 (California)

· 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.

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

• TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms GHS07
- · Signal word Warning

· Hazard-determining components of labeling:

Aliphatic polyisocyanate

- 1,6-Hexamethylene diisocyanate homopolymer
- cyclohexyldimethylamine
- Hazard statements Combustible liquid.
- Harmful if inhaled.
- May cause an allergic skin reaction.
- May cause respiratory irritation.
- Harmful to aquatic life.
- Harmful to aquatic life with long lasting effects.
- **Precautionary statements** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid release to the environment.

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Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If skin irritation or rash occurs: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Dispose of contents/container in accordance with local/regional/national/international regulations.

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.

· Contact:

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• Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Flam. Liq. 3: Flammable liquids - Category 3 Flam. Liq. 4: Flammable liquids - Category 4 Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 2: Acute toxicity – Category 2 Acute Tox. 4: Acute toxicity – Category 4 Skin Corr. 1B: Skin corrosion/irritation - Category 1B Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Skin Sens. 1: Skin sensitisation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3 Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard - Category 3 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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