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1 Identification

- · Trade name: PALLMANN P104 TURBO
- · Application of the substance / the mixture 1-component polyurethane primer
- 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:

Product safety department phone: 720-373-4810

email: safety.us@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



GHS08 Health hazard

Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Carcinogenicity 2 H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Toxicity - Inhalation 4

H332 Harmful if inhaled.

Skin Irritation 2 H315 Causes skin irritation.

Eye Irritation 2A H319 Causes serious eye irritation.

Sensitization - Skin 1 H317 May cause an allergic skin reaction. Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

· Label elements

· GHS label elements

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

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Safety Data Sheet acc. to OSHA HCS

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· Hazard pictograms



GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

Diphenylmethanediisocyanate, isomeres and homologues

· Hazard statements

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.

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

Continue rinsing.

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/doctor.

- · Information pertaining to particular dangers for man and environment:
- · NFPA ratings (scale 0 4)



Health = 2Flammability = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Flammability = 1

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).

- * Chronic (long-term) health effects may result from repeated overexposure.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· **Description:** 1C PU Primer

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· Hazardous ingredients:

CAS: 9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues

75-100%

Sensitization - Respiratory 1, H334; Carcinogenicity 2, H351; Specific Target Organ Toxicity - Repeated Exposure 2, H373; Acute Toxicity - Inhalation 4, H332; Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317; Specific Target Organ Toxicity - Single Exposure 3, H335

· 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:

Immediately remove any clothing soiled by the product.

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; consult doctor in case of complaints.

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 eve contact:

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

Rinse opened eye for several minutes under running water. Then consult a doctor.

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

Asthma attacks

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents:

CO₂ 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.
- · Additional information: Flash point: > 200 °C (> 392 °F).

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · 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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Dispose contaminated material as waste according to section 13.

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:

All components have the value 0.15 mg/m³.

· PAC-2:

All components have the value 3.6 mg/m³.

· PAC-3:

All components have the value 22 mg/m³.

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.

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: 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:

Keep receptacle tightly sealed.

Protect from humidity and water.

Once opened unfinished quantities must be stored in airtight packaging conditions.

· 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 section 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:

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Wear suitable protective clothing, gloves and eye/face protection.

Keep away from foodstuffs, beverages and feed.

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.

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· Respiratory protection:

Not necessary. Ensure that room is well-ventilated during processing.

Respiratory protection required in insufficiently ventilated working areas. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended (A2-P2).

· 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.

· Eye protection:



Tightly sealed goggles or face protection

9 Physical and chemical properties

Information on basic physical and c General Information	memon propernes
Appearance:	
Form:	Fluid
Color:	Brown
Odor:	Light
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	>200 °C (>392 °F)
Flammability (solid, gaseous):	Not applicable.
Auto igniting:	>400 °C (>752 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure at 25 °C (77 °F):	0.0001 hPa (0 mm Hg)
Density at 20 °C (68 °F):	1.24 g/cm³ (10.35 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.

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· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 20 °C (68 °F): 250 mPas Kinematic: Not determined.

• 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 °F (260°C), polymerization and separation of CO₂.

· Possibility of hazardous reactions

May produce violent reactions with bases and numerous organic substances including alcohols and amines. 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 Avoid heating to above 104 °F (40°C) and cooling to below 50 °F (10°C).
- · 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: 9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues			
Dermal	LD50	>9,000 mg/kg (rat) (OECD 404)	
Inhalative	LC50/4 h	0.49 mg/l (rat) (OECD 403)	

- · Specific symptoms in biological assay:
- · Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.
- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Sensitization possible through inhalation.

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.

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· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

All components have the value 3.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

Carcinogenicity 2

12 Ecological information

- · Toxicity
- · Aquatic toxicity:

CAS: 9016-87-9 Diphenylmethanediisocyanate, isomeres and homologues

LC50/96h >1,000 mg/l (Danio rerio)

- · 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.
- · 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.

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

- · 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

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· Special precautions for user	Not applicable.
· Transport/Additional information	Not regulated as hazardous material according to the above specifications. Avoid heating to above 104 °F (40°C) and cooling to below 50 °F (10°C).
· 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):

All ingredients are 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)

All components have the value CBD.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

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

None of the ingredients is listed.

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.

· Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

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H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

· Contact:

Product safety department phone: 720-373-4810 email: safety.us@uzin-utz.com

· 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)

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

ICAO: International Civil Aviation Organisation

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

ADR: Accord relatif au transport international 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

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

Acute Toxicity - Inhalation 4: Acute toxicity - Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Sensitization - Respiratory 1: Respiratory sensitisation - Category 1

Sensitization - Skin 1: Skin sensitisation - Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) - Category 3

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

* * Data compared to the previous version altered.

US