

# MSMS Document

## Product Boss® PU 25 Urethane Sealant

### 1. Identification of the substance/mixture and of the company/undertaking

Product identifier

**Trade name:** Boss® PU 25 Urethane Sealant

- **Article number:** 74149
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use:**
  - SU3 Industrial uses: uses of substances as such or in preparations at industrial sites*
  - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)*
  - SU21 Consumer uses: Private households/general public/consumers*
- **Product category:** PC1 Adhesives, sealants
- **Application of the substance/the preparation:** Polyurethane sealant
- **Details of the supplier of the safety data sheet**

**MSDS ID** BOSS PU25

**Manufacturer**  
Accumetric, LLC  
350 Ring Road,  
Elizabethtown, KY 42701

**Phone Number**  
(270) 769-3385  
**Emergency Phone**  
CHEMTREC (800) 424-9300  
**Revision Date** 25/02/2014

### 2. Hazards Identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No. 1272/2008**  
*The product is not classified according to the CLP regulation.*
- **Classification according to Directive 67/548/EEC or Directive 1999/EC** Void
- **Classification system:**  
*The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.*
- **Label elements**
- **Labelling according to Regulation (EC) No. 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
*Contains isocyanates. May produce an allergic reaction.  
Safety data sheet available on request.*
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3. Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Sealant based on polyurethane prepolymer.

<b>Dangerous components:</b>		
CAS: 9002-86-2	Polyvinyl chloride Substance with a Community workplace exposure limit	15-25%
CAS: 1305-78-8 EINECS: 215-138-9 Reg.nr.: 01-2119475325-36	Calcium oxide ☒ Xi R38-41 ☞ Eye Dam. 1, H318; ☠ Skin Irrit. 2, H315	2-5%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	Xylene, mixture of isomers ☒ Xn R20/21; ☒ Xi R38 R10 ☞ Flam. Liq. 3, H226; ☠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	< 2.5%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17	Titanium dioxide Substance with a Community workplace exposure limit	< 2%
EC number: 923-141-6 Reg.nr.: 01-2119456620-43	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <K 2% aromatics ☒ Xn R65 R66 ☞ Asp. Tox. 1, H304	< 1%
CAS: 100-41-4 EINECS: 202-849-4 Reg.nr.: 01-2119489370-35	Ethylbenzene ☒ Xn R20; ☠ F R11 ☞ Flam. Liq. 2, H225; ☠ Acute Tox. 4, H332	< 1%
CAS: 1333-86-4 EINECS: 215-609-9 Reg.nr.: 01-2119384822-32	Carbon black Substance with a Community workplace exposure limit	< 0.5%
CAS: 1305-62-0 EINECS: 215-137-3 Reg.nr.: 01-2119475151-45	Calcium dihydroxide ☒ Xi R38-41 ☞ Eye Dam. 1, H318; ☠ Skin Irrit. 2, H315	< 0.5%

### 4. First aid measures

- **Description of first aid measures**
- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation.**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
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.
- **Most important symptoms and effects, both acute and delayed**  
Drowsiness  
Headache  
Dizziness  
Nausea
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5. Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
  - Carbon dioxide*
  - Foam*
  - Fire-extinguishing powder*
- **For safety reasons unsuitable extinguishing agents** *Water with full jet.*
- **Special hazards arising from the substance or mixture**
  - In case of fire, the following can be released:*
  - Carbon monoxide (CO)*
  - Nitrogen oxides (NOx)*
  - In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:*
  - Hydrogen cyanide (HCN)*
  - Isocyanates*
- **Advice for firefighters**
- **Protective equipment:** *Wear self-contained respiratory protective device.*

## 6. Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Ensure adequate ventilation.*
  - Keep away from ignition sources.*
- **Environmental precautions:** *Do not allow product to reach sewage system or any water course.*
- **Methods and material for containment and cleaning up:**
  - Pick up mechanically.*
  - Send for recovery or disposal in suitable receptacles.*
  - Do not close them (reaction with water forming carbon dioxide).*
- **Reference to other sections**
  - See section 8 for information on personal protection equipment.*
  - See section 13 for disposal information.*

## 7. Handling and storage

- **Handling**
- **Precautions for safe handling** *Open and handle receptacle with care*
- **Information about protection against explosions and fires:**
  - Keep ignition sources away – Do not smoke.*
- **Conditions for safe storage, including any incompatibilities**
- **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:** *Protect from humidity and water.*
- **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**

• <b>Components with limit values that require monitoring at the workplace:</b>	
<b>9002-86-2 polyvinyl chloride</b>	
WEL	Long-term value: $10^* 4^{**} \text{ mg/m}^3$ *inhalable dust **respirable dust
<b>1305-78-8 calcium oxide</b>	
WEL	Long-term value: $2 \text{ mg/m}^3$
<b>1330-20-7 xylene, mixture of isomers</b>	
WEL	Short-term value: $441 \text{ mg/m}^3$ , 100 ppm Long-term value: $220 \text{ mg/m}^3$ , 50 ppm Sk; BMGV
<b>13463-67-7 titanium dioxide</b>	
WEL	Long-term value: $10^* 4^{**} \text{ mg/m}^3$ *total inhalable ** respirable
<b>Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</b>	
RCP-TWA	Long-term value: $1200 \text{ mg/m}^3$
VME	Long-term value: $1200 \text{ mg/m}^3$
<b>100-41-4 ethylbenzene</b>	
WEL	Short-term value: $552 \text{ mg/m}^3$ , 125 ppm Long-term value: $441 \text{ mg/m}^3$ , 100 ppm Sk
<b>1333-86-4 carbon black</b>	
WEL	Short-term value: $7 \text{ mg/m}^3$ Long-term value: $3.5 \text{ mg/m}^3$
<b>1305-62-0 calcium dihydroxide</b>	
WEL	Long-term value: $5 \text{ mg/m}^3$
• <b>Ingredients with biological limit values:</b>	
<b>1330-20-7 xylene, mixture of isomers</b>	
BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid

- **Additional information:** *The lists that were valid during the creation were used as basis.*
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
*Avoid close or long term contact with the skin.  
Wash hands before breaks and at the end of work.*
- **Breathing equipment:**  
*Use suitable respiratory protective device in case of insufficient ventilation:  
Short term filter device:  
Filter AB*
- **Protection of hands:**  
*PVA gloves of superior quality.  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.*
- **Eye protection:** *Not required.*

## 9. Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: *Pasty*
  - Color: *Various colors*
- Odour: *Light*
- Change in condition
  - Melting point/Melting range: *undetermined*
  - Boiling point/Boiling range: *137°C*
- Flash point: *> 60 °C*
- Flammability (solid) *The product is not subject to classification because its speed of combustion is lower than the limit of the regulation.*
- Self-ignition temperature: *> 200 ° C*
- Danger of explosion: *Product is not explosive. However, formation of explosive air/vapour mixtures are possible*
- Explosion limits:
  - Lower: *0.6 Vol %*
  - Upper: *7 Vol %*
- Density at 20°C: *1.16*
- Solubility in / Miscibility with Water: *Insoluble*
- Other information *No further relevant information available.*
- Volatile organic compounds (VOC): *< 3%*

## 10. Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition/conditions to be avoided: *No decomposition if used according to specifications.*
- Possibility of hazardous reactions
  - Reacts with alcohols, amines, aqueous acids and alkalis.*
  - Reacts with water forming carbon dioxide. Danger of receptacles bursting because of vapour overpressure.*
- 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:

LD/LC50 values that are relevant for classification:		
1330-20-7 xylene, mixture of isomers		
<i>Oral</i>	<i>LD50</i>	<i>8700 mg/kg (rat)</i>
<i>Dermal</i>	<i>LD50</i>	<i>2000 mg/k (rbt)</i>
<i>Inhalative</i>	<i>LD50/4 h</i>	<i>6350 mg/l (rat)</i>

- Primary irritant effect:
- On the skin: *May be slightly irritant.*

- **On the eye:** *Light irritating effect.*
- **Sensitization:** *No sensitizing effects know.*
- **Additional toxicological information:** *Non-irritating to rabbit's eye (method: OECD guideline 405)*

## 12. Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behavior in environmental system:**
- **Bioaccumulative potential** *No further relevant information available.*
- **Mobility in soil** *No further relevant information available.*
- **Additional ecological information:**
- **General notes:**  
*Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
 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**  
*Must be disposed of in an incinerator for hazardous waste according to official regulations.*
- **Waste disposal key:** *08 04 09\**
- **Uncleaned packaging:**
- **Recommendation:** *Disposal must be made according to official regulations.*

## 14. Transport information

<ul style="list-style-type: none"> <li>• UN-Number</li> <li>• ADR, AND, IMDG, IATA</li> </ul>	<i>Void</i>
<ul style="list-style-type: none"> <li>• UN proper shippingname</li> <li>• ADR, AND, IMDG</li> </ul>	<i>Void</i>
<ul style="list-style-type: none"> <li>• IATA</li> </ul>	<i>Not regulated</i>
<ul style="list-style-type: none"> <li>• Transport hazard class(es)</li> <li>• ADR, AND, IMDG, IATA</li> <li>• Class</li> </ul>	<i>Void</i>
<ul style="list-style-type: none"> <li>• Packing group</li> <li>• ADR, IMDG, IATA</li> </ul>	<i>Void</i>
<ul style="list-style-type: none"> <li>• Environmental hazards:</li> <li>• Marine pollutant:</li> </ul>	<i>No</i>
<ul style="list-style-type: none"> <li>• Special precautions for user</li> </ul>	<i>Not applicable.</i>
<ul style="list-style-type: none"> <li>• Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	<i>Not applicable.</i>
<ul style="list-style-type: none"> <li>• UN "Model Regulation":</li> </ul>	<i>-</i>

## 15. Regulatory information

- **Chemical safety assessment:** *A Chemical Safety Assessment has been carried out.*

## 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. This data sheet is particularly in accordance with the European regulations 1907/2006/EC, 1272/2008/EC and their amendments; it is written according to Annex II of the European Regulation 453/2010/EC.*

- **Relevant phrases**

- H225 Highly flammable liquid and vapor.*
- H226 Flammable liquid and vapor.*
- H304 May be fatal if swallowed and enters airways.*
- H312 Harmful in contact with skin.*
- H315 Causes skin irritation.*
- H318 Causes serious eye damage.*
- H332 Harmful if inhaled.*
- R10 Flammable.*
- R11 Highly flammable.*
- R20 Harmful by inhalation.*
- R20/21 Harmful by inhalation and in contact with skin.*
- R38 Irritating to skin.*
- R41 Risk of serious damage to eyes.*
- R65 Harmful: may cause lung damage if swallowed.*
- R66 Repeated exposure may cause skin dryness or cracking.*

- **Department issuing MSDS:** *Laboratory*

- **Contact:** *cf. § 1*

- **Review:**

*An asterisk in the margin of a paragraph means amendments in comparison to the former version.*

- **Abbreviations and acronyms:**

*RID: Reglement 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 Organization*

*ADR: Accord europeen 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*

*IATA: International Air Transport Association*

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

*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\_*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

## Annex: Exposure scenario

- **Name** *xylene, mixture of isomers*
- **Short title of the exposure scenario**  
*Industrial use for rigid foam, coatings and adhesives and sealants*  
*Professional end use in rigid foam, coatings, adhesives and sealants and other composite material*  
*Consumer end use in rigid foam, coatings and adhesives and sealants*
- **Sector of Use**  
*SU3 Industrial uses: uses of substances as such or in preparations at industrial sites*  
*SU21 Consumer uses: Private households/general public/consumers*  
*SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)*  
*SU3 Industrial uses: uses of substances as such or in preparations at industrial sites*  
*SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)*  
*SU21 Consumer uses: Private households/general public/consumers*
- **Product category**  
*PC1 Adhesives, sealants*  
*PC32 Polymer preparations and compounds*
- **Process category**  
*PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises*  
*PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)*  
*PROC7 Industrial spraying*  
*PROC8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities*  
*PROC8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities*  
*PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)*  
*PROC15 Use as laboratory reagent*
- **Environmental release category**  
*ERC2 Formulation of preparations*  
*ERC5 Industrial use resulting in inclusion into or onto a matrix*  
*ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix*  
*ERC8f Wide dispersive indoor use resulting in inclusion into or onto a matrix*
- **Description of the activities/processes covered in the Exposure Scenario**  
*See section 1 of the annex to the Safety Data Sheet.*
- **Conditions of use**  
*Customary application according to section 1.*  
*According to directions for use.*
- **Duration and frequency**  
*SU3 and SU22:*  
*Up to 8 h per day, 300 days per year*  
*SU21, PC1 (adhesives, sealants):*  
*Up to 1 times per day, 365 days per year*  
*Concentrations up to 25%*  
*Exposed skin surface (hands) up to 35.73 cm<sup>2</sup>*  
*Amounts used/applied per event: 75 g*  
*Room volume: > 20 m<sup>3</sup>*  
*Exposition up to 1 hour(s) per event*
- **Physical parameters**
- **Physical state** *Fluid*
- **Concentration of the substance in the mixture** *Raw material.*
- **Other operational conditions**



- **Other operational conditions affecting environmental exposure**

*Local fresh water dilution factor: 10*

*Local marine water dilution factor: 100*

- **Other operational conditions affecting worker exposure**

*Indoor application.*

*Outdoor application.*

*Do not breathe gas/vapor/aerosol.*

*Avoid contact with the skin, eyes and clothing.*

*Avoid contact with the skin.*

- **Other operational conditions affecting consumer exposure** *Keep out of the reach of children.*

- **Other operational conditions affecting consumer exposure during the use of the product**

*Application temperature: room temperature*

- **Risk management measures**

- **Worker protection**

SU3:

*Avoid direct contact with skin. Identify potential areas for indirect contact with the skin. Wear gloves (EN 374) if there is a risk of contact of the substance with the skin. Remove impurities/quantities immediately after spilling. Wash skin immediately after handling. Complete basic training of personnel, so that exposure is minimized and eventually the skin problems are reported. Other measures of skin protection are required, such as waterproof clothing and a protective mask during activities with high spread, leading to the likely significant release of aerosols (e.g. spraying).*

*Mixing operations (closed systems): provide adequate general ventilation (not less than 3 to 5 air changes per hour).*

*Preparation of material for application/blending operations (open systems): provide adequate controlled ventilation (10 to 15 air changes per hour).*

*Spray (automatic/robotic): carry out in ventilated booth with laminar air flow.*

*Spray: ensure an adequate controlled ventilation (10 to 15 air changes per hour). Wear a respiratory protection (standard #N 140 with Type A filter or better).*

*Roller coating, spraying and flow coating: provide additional ventilation where emissions occur.*

*Storage with occasional controlled exposure: store substance in a closed system.*

*Cleaning: ensure an adequate controlled ventilation (10 to 15 air changes per hour)*

SU22:

*Avoid direct contact with skin. Identify potential areas for indirect contact with the skin. Wear gloves (EN 374) if there is a risk of contact of the substance with the skin. Remove impurities/quantities immediately after spilling. Wash skin immediately after handling. Complete basic training of personnel, so that exposure is minimized and eventually the skin problems are reported. Other measures of skin protection are required, such as waterproof clothing and a protective mask during activities with high spread, leading to the likely significant release of aerosols (e.g. spraying).*

*Preparation of material for indoor application: provide adequate controlled ventilation (10 to 15 air changes per hour); avoid activities with more than 1 hour exposure.*

*Preparation of material for outdoor application: ensure that exploitation takes place outdoors; avoid activities with more than 1 hour exposure.*

*Indoor roller coating, spraying and flow coating: ensure adequate controlled ventilation (10 to 15 air changes per hour); wear respiratory protection (standard EN 140 with Type A filter or better).*

*Outdoor roller coating, spray and flow coating: ensure that the operation takes place outdoors, wear respiratory protection (standard EN 140 with Type A filter or better).*

*Indoor spraying: carry out in ventilated booth with laminar air flow.*

*Outdoor spraying: ensure that the operation takes place outdoors; avoid activities with more than 4 hours exposure; wear a full face respirator according to standard EN 136 with Type A filter or better.*

*Cleaning and maintenance of equipment: extinguish systems before opening and maintenance of equipment; avoid activities with more than 4 hours exposure.*

*Storage with occasional controlled exposure: store substance in a closed system; ensure an adequate controlled ventilation (10 to 15 air changes per hour).*

*Do not eat, drink, smoke while working.*

- **Organizational protective measures**

- SU3 and SU22:

- *Do not apply industrial sludge to natural soils.*

- *Sewage sludge has to be incinerated, stored or treated.*

- *Ensure that activities are executed by specialists or authorized personnel only.*

- **Technical protective measures**

- *Ensure good ventilation/exhaustion at the workplace.*

- *Ensure that suitable extractors are available on processing machines.*

- *Take note of emission threshold.*

- **Personal protective measures**

- *Avoid contact with the eyes and skin.*

- *Wear approved protective gloves (EN 374); if contamination of hands is likely, wash skin contamination immediately.*

- *Do not inhale gases/fumes/aerosols.*

- *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.*

- *Wear a respiratory protection (standard EN 140 with Type A filter or better).*

- *Avoid contact with the skin.*

- *Protective work clothing.*

- **Measure for consumer protection**

- *Ensure adequate labelling.*

- *Protective gloves.*

- *Tightly sealed goggles.*

- *Keep out of reach of children.*

- *Keep locked up and out of the reach of children.*

- **Environmental protection measures**

- **Air** *No special measures required.*

- **Water**

- *Do not allow to reach sewage system.*

- *On-site wastewater treatment (before release into the water) to achieve the required level of cleaning: 93.6%*

- *Do not allow to reach ground water, water bodies or sewage system.*

- **Soil** *Prevent contamination of soil.*

- **Disposal measures**

- *Do not apply industrial sludge to natural soils.*

- *Ensure that waste is collected and contained.*

- **Disposal procedures**

- *Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*

- **Guidance for downstream users**

- *For the risk assessment, the tools recommended by ECHA can be used.*

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.