

Safety Data Sheet acc. to OSHA HCS

Date of PDF Creation 05/25/2017

Reviewed on 05/25/2017

1 Identification

· **Product identifier**

· **Trade name:** Porous Pave B5SN Soft Binder

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Porous Pave
4385 E 110th St.
Grant, MI 49327

Telephone: (231) 834-7720

Fax : (231) 834-5537

· **Information department:** Product Development Department

· **Emergency telephone number:**

For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night.

Within USA and Canada: (800) 424-9300

Outside USA and Canada: +1 (703) 527-3887 (Collect Calls Not Accepted)

2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· **Storage:**

Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 Gas). Store locked up.

· **Label elements**

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

· **Hazard pictograms**



GHS07



GHS08

· **Signal word** Danger

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

methylenediphenyl diisocyanate (MDI) Mixed Isomers

· **Hazard statements**

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

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

Specific treatment (see on this label).

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

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

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO₂ gas).

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 1

Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**



Health = *2

Fire = 1

Reactivity = 1

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Polyurethane Prepolymer

· **Dangerous components:**

26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers

< 25%

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4 First-aid measures

· Description of first aid measures

· General information:

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

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek medical treatment in case of complaints.

In case of respiratory failure or breathing irregularities, commence resuscitation or administer oxygen.

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

· After skin contact:

Instantly wash with water and soap and rinse thoroughly. Remove any contaminated clothing. If skin irritation persists, seek medical advice.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult 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

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.

· For safety reasons unsuitable extinguishing agents:

Water with full jet

· Special hazards arising from the substance or mixture

Can be released in case of fire:

Nitrogen Oxides (NO_x)

Carbon Monoxide (CO)

Hydrogen Cyanide (HCN)

· Advice for firefighters

· Protective equipment:

Wear breathing apparatus

Wear full protective suit with self-contained breathing apparatus

See section 8

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Do not allow product to reach sewage system or bodies of water.

· Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Transfer to a waste container. Keep the material damp and exposed to the air in a secure area (CO₂-formation!) until completely solidified. The waste can then be disposed of on an approved landfill or a special refuse dump. Ensure adequate ventilation.

In the event of a large spill, treat spill area with decontamination solution. Preparation of decontamination solution: Prepare a mixture of 0.2 - 0.5% liquid detergent and 3 - 8% concentrated ammonium hydroxide in water (5 - 10% sodium carbonate may be substituted for the ammonium hydroxide).

· 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.

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7 Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaust at the workplace.

Keep containers tightly sealed.

Prevent formation of aerosols.

Exhaust ventilation required during spraying or when material is being used at temperatures above 100 degrees F.

Information about protection against explosions and fires: Pay attention to the general rules of internal fire prevention.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Recommended ideal storage temperature range: 59 - 77 degrees F. Product should not be stored below 40 degrees or above 110 degrees F.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Keep container 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:

26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers

ACGIH TLV	Short-term value: 0.05 mg/m ³
NIOSH REL/CEILING	Short-term value: 0.2 mg/m ³
NIOSH REL/TWA	Short-term value: 0.05 mg/m ³
OSHA PEL	Short-term value: 0.2 mg/m ³

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Gases fumes and aerosols should not be inhaled.

Breathing equipment:

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

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

The following glove types are recommended: neoprene, nitrile rubber, PVC or butyl rubber. Thin, disposable latex gloves should be avoided for repeated or long term handling of the material. Recommended thickness of the glove material: 5 - 6 mil

Selection of the glove material should be based on the consideration of penetration times, rates of diffusion and the degradation

Material of gloves

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 can not be calculated in advance and has therefore to be checked prior to the application.

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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· **Eye protection:**

Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Liquid
· Color:	Light to dark amber
· Odor:	Characteristic
· 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)· **Ignition temperature:**· **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):** 1.09 g/cm³ (9.096 lbs/gal)· **Relative density** Not determined.· **Vapor density** Not determined.· **Evaporation rate** Not determined.· **Solubility in / Miscibility with**· **Water:** Insoluble, Reacts· **Partition coefficient (n-octanol/water):** Not determined.· **Viscosity:**

· Dynamic at 20 °C (68 °F):	4200 mPas
· Kinematic:	Not determined.

· **Solvent content:**· **Organic solvents:** 0.0 %· **Solids content:** 100.0 %· **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.

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- **Possibility of hazardous reactions**

Exothermic reaction with amines and alcohols

Reacts with water to liberate CO₂ gas which may build pressure in closed containers

- **Conditions to avoid** No further relevant information available.

- **Incompatible materials:** No further relevant information available.

- **Hazardous decomposition products:**

By Fire and High Heat: Carbon Monoxide, Carbon Dioxide, Oxides of Nitrogen and traces of HCN.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers

Oral LD50 > 5000 mg/kg (rat)

Dermal LD50 > 5000 mg/kg (rabbit)

Inhalative LC50/4 h 2240 mg/l (rat)

- **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:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

- **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.

- **Additional ecological information:**

- **General notes:**

This product is not miscible with water. Reacts with water at the interface producing CO₂ gas and forming a solid and insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (eg. detergents) or by water-soluble solvents. Previous experience demonstrates that polyurea is inert and non-degradable.

Water hazard class 1 (self-assessment): slightly hazardous for water.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

· Waste treatment methods

· Recommendation:

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

· Uncleaned packagings:

· Recommendation:

Disposal must be made according to official regulations.

Empty containers may only be disposed of after neutralising any product remaining on the walls of the containers with a mixture of isopropanol, ammonia and water and removal of the warning labels. For preparation of decontamination solution, refer to section 6.

14 Transport information

· UN-Number

· DOT, ADR, ADN, IMDG, IATA Void

· UN proper shipping name

· DOT, ADR, ADN, IMDG, IATA Void

· Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA
· Class Void

· Packing group

· DOT, ADR, IMDG, IATA Void

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": Void

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· 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.

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· Cancerogenity 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 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

methylenediphenyl diisocyanate (MDI) Mixed Isomers

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves.

Wear eye protection / face protection.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

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

Specific treatment (see on this label).

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

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

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

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 gas).

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

· Chemical safety assessment: A Chemical Safety Assessment has not 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.

· Department issuing SDS: Product Development Department

· Contact: Product Development Department

· Date of preparation / last revision 05/25/2017 / -

· 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)

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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

ICAO: International Civil Aviation Organisation

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

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2