

SL=P070-B - Urethane Bonding Kit Part B

Material number SL=P070-B

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1. Product and company identification**Product identifier**

Trade name: SL=P070-B - Urethane Bonding Kit Part B

Relevant identified uses of the substance or mixture and uses advised againstGeneral use: Adhesive, Component B, for orthopedic procedures.
For use in industrial installations and professional treatment only.**Details of the supplier of the safety data sheet**Company name: Otto Bock Health Care
Street/POB-No.: 3820 W. Great Lakes Drive
Postal Code, city: Salt Lake City, UT 84120
USAWWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Dept. responsible for information:

Quality Department,
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),
Email: USRegulatory@ottobock.comAdditional information: Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany**Emergency phone number****CHEMTREC, Telephone: +1 (800) 424-9300****Transport:****CONSULTANK Lutz Harder GmbH (Contract QUALI003)****Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)****2. Hazards identification****Emergency overview**

Appearance: Form: liquid

Color: amber

Odor: mild, characteristic

Classification: Acute Toxicity - oral - Category 4; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Specific Target Organ Toxicity (Repeated Exposure) - Category 2; Aquatic toxicity - acute - Category 1; Aquatic toxicity - chronic - Category 1;

Hazard symbols:



Signal word:

Warning

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Hazard statements: Harmful if swallowed.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 May cause damage to organs through prolonged or repeated exposure.
 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
 Do not breathe vapors.
 Avoid release to the environment.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 IF ON SKIN: Wash with plenty of water/soap.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Get medical advice/attention if you feel unwell.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

Hazards not otherwise classified

Chronic hazard warning (risk depends on duration and level of exposure):
 Contains material which caused cancer in laboratory animal tests.
 Contains material which caused chronic liver, kidney, and reproductive organ damage in laboratory animal tests.
 see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Polyol/Aromatic diamine blend

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 25322-69-4	polypropylene-glycol	75 - 80 %	Acute Toxicity - oral - Category 4.
CAS 68479-98-1	Diethylmethylbenzenediamine	20 - 25 %	Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aquatic toxicity - acute - Category 1. Aquatic toxicity - chronic - Category 1.
CAS 25973-55-1	2-(2'-Hydroxy-3',5'-di-tert-amylphenyl)-benzotriazole	1 - 5 %	Acute Toxicity - oral - Category 4. Skin Irritation - Category 2. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	1 - 5 %	Sensitization - skin - Category 1. Aquatic toxicity - acute - Category 1. Aquatic toxicity - chronic - Category 1.
CAS 82919-37-7	Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	1 - 5 %	Sensitization - skin - Category 1. Aquatic toxicity - acute - Category 1. Aquatic toxicity - chronic - Category 1.

4. First aid measures

- General information: Contaminated/fouled clothing and shoes must be removed immediately.
- In case of inhalation: Provide fresh air. In case of breathing difficulties administer oxygen.
Seek medical treatment in case of troubles.
- Following skin contact: After contact with skin, wash immediately with soap and plenty of water.
Seek medical treatment in case of troubles.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Seek medical attention if irritation persists.
- After swallowing: Immediately get medical attention.
Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Harmful: danger of serious damage to health by prolonged exposure if swallowed.
May cause sensitization by skin contact.
Causes serious eye irritation.

Information to physician

Treat symptomatically.

5. Fire fighting measures

- Flash point/flash point range:
> 212 °F (c.c.)
- Auto-ignition temperature: No data available
- Suitable extinguishing media:
Water spray jet, carbon dioxide, dry chemical powder.
- Extinguishing media which must not be used for safety reasons:
Strong water jet

Specific hazards arising from the chemical

Combustible. Fires in the immediate vicinity may cause the development of dangerous vapors.
In case of fire may be liberated: Carbon dioxide, carbon monoxide, nitrogen oxides (NOx)

- Protective equipment and precautions for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

- Additional information: Cool endangered containers with water spray and, if possible, remove from danger zone.
Suppress gases/vapours/mists with water spray jet.
Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

- Personal precautions: Avoid contact with skin, eyes, and clothing. Do not breathe vapors. Wear appropriate protective equipment.
Provide for sufficient ventilation, particularly in closed rooms.
If necessary: Wear a self-contained breathing apparatus and chemical protective clothing.
- Environmental precautions:
Do not allow to penetrate into soil, waterbodies or drains.

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Methods for clean-up: Plug leak if safely possible.
Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder.
Store in special closed containers and dispose of according to ordinance. Thoroughly clean surrounding area.

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid contact with skin, eyes, and clothing. Do not breathe vapors.
Wear appropriate protective equipment. Wash hands before breaks and after work.
When using do not eat, drink or smoke.

Storage

Requirements for storerooms and containers:

Store container tightly closed in a dry area. Avoid temperatures exceeding 86 °F.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Engineering controls

Provide adequate ventilation.
Processing temperature >86 °F: The use of local exhaust ventilation is recommended.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: nitrile rubber, Neoprene, polyvinyl chloride, Fluororubber (Viton)
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: When vapors form Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:

Avoid contact with skin, eyes, and clothing. Take off immediately all contaminated clothing.
Do not breathe vapors. Wear appropriate protective equipment.
Safety shower and eye wash station should be easily accessible to the work area.
Wash hands before breaks and after work.
When using do not eat, drink or smoke.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Form: liquid
Color: amber

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Odor:	mild, characteristic
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 100.4 °F
Flash point/flash point range:	> 212 °F (c.c.)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 68 °F: 1.01 g/mL
Water solubility:	slightly soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	>38°C°
Additional information:	No data available

10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	may occur
Conditions to avoid:	Avoid temperatures exceeding 86 °F.
Incompatible materials:	Keep away from strong acids, strong bases and oxidizing agents. Reacts with isocyanates to form high-molecular-weight polymers.
Hazardous decomposition products:	In case of fire may be liberated: Carbon dioxide, carbon monoxide, nitrogen oxides (NOx)
Thermal decomposition:	>38°C°

11. Toxicological information

Toxicological tests

Acute toxicity:	LD50 Rat, oral: > 1200 mg/kg
	LD50 Rabbit, dermal: > 2000 mg/kg
	LC50 Rat, inhalative: > 20 mg/L/4h

Toxicological effects: Acute toxicity (oral): Acute Toxicity - oral - Category 4 = Harmful if swallowed.
 Acute toxicity (dermal): Lack of data.
 Acute toxicity (inhalative): Lack of data.
 Skin corrosion/irritation: Lack of data.
 Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.
 Sensitisation to the respiratory tract: Lack of data.
 Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.
 Germ cell mutagenicity/Genotoxicity: Lack of data.
 Carcinogenicity: Lack of data.
 Reproductive toxicity: Lack of data.
 Effects on or via lactation: Lack of data.
 Specific target organ toxicity (single exposure): Lack of data.
 Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity (Repeated Exposure) -
 Category 2 = May cause damage to organs through prolonged or repeated exposure.
 Aspiration hazard: Lack of data.

General remarks

Substance shown to be clearly carcinogenic in animal studies.
 Specific symptoms in animal studies, repeated exposure: liver damage
 Diethylmethylbenzenediamine:
 LD50 Rat, oral: > 500 mg/kg; Rabbit, dermal: 700 mg/kg.
 Danger of cutaneous absorption.

12. Ecological information

Ecotoxicity

Aquatic toxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 Diethylmethylbenzenediamine:
 Daphnia toxicity: EC50 Daphnia magna (Big water flea): < 1 mg/L/48 h.
 Fish toxicity: LC50 Leuciscus idus: 194 mg/L/48 h.

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

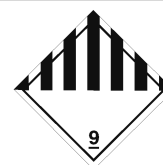
Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.

14. Transport information

USA: Department of Transportation (DOT)

Identification number: UN3082
 Proper shipping name: UN 3082, UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 Contains Diethylmethylbenzenediamine, Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
 Hazard class or Division: 9
 Packing Group: III
 Labels: 9
 Symbols: G
 Special provisions: 8, 146, 173, 335, IB3, T4, TP1, TP29
 Packaging – Exceptions: 155
 Packaging – Non-bulk: 203
 Packaging – Bulk: 241
 Quantity limitations – Passenger aircraft / rail: No limit
 Quantity limitations – Cargo only: No limit
 Vessel stowage – Location: A



Sea transport (IMDG)

UN number: UN 3082
 Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 Contains Diethylmethylbenzenediamine, Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
 Class or division, Subsidiary risk: Class 9, Subrisk -
 Packing Group: III
 EmS: F-A, S-F
 Special provisions: 274, 335, 969
 Limited quantities: 5 L
 Excepted quantities: E1
 Contaminated packaging - Instructions: P001, LP01
 Contaminated packaging - Provisions: PP1
 IBC - Instructions: IBC03
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: T4
 Tank instructions - Provisions: TP2, TP29
 Stowage and handling: Category A.
 Properties and observations: -
 Marine pollutant: yes
 Segregation group: none

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Air transport (IATA)

UN/ID number:	UN 3082
Proper shipping name:	UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Contains Diethylmethylbenzenediamine, Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate and Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
Class or division, Subsidiary risk:	Class 9
Packing Group:	III
Hazard label:	Miscellaneous
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G
Passenger and Cargo Aircraft:	Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Cargo Aircraft only:	Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L
Special provisions:	A97 A158 A197
Emergency Response Guide-Code (ERG):	9L

15. Regulatory information

National regulations - U.S. Federal Regulations

polypropylene-glycol:	TSCA Inventory: listed; EPA flags XU TSCA HPVC: not listed
Diethylmethylbenzenediamine:	TSCA Inventory: listed TSCA HPVC: not listed
2-(2'-Hydroxy-3',5'-di-tert-amylphenyl)-benzotriazole:	TSCA Inventory: listed TSCA HPVC: not listed TSCA: listed
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate:	TSCA Inventory: listed TSCA HPVC: not listed
Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate:	TSCA Inventory: listed TSCA HPVC: not listed

National regulations - Canada

DSL: Components of this product have been reported to Environment Canada in accordance with subsection 25 of the Canadian Environmental Protection Act and are included on the Domestic Substances List. All ingredients are listed or need not be listed.

National regulations - Great Britain

Hazchem-Code: •3Z

16. Other information

Text for labeling: Contains 75 - 80 % polypropylene-glycol, 20 - 25 % Diethylmethylbenzenediamine, 1 - 5 % 2-(2'-Hydroxy-3',5'-di-tert-amylphenyl)-benzotriazole, 1 - 5 % Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate, 1 - 5 % Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. Safety data sheet available on request.

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Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Reason of change:

Changes in section 1.3: Corporate headquarters

Date of first version:

11/3/2001

Department issuing data sheet

Contact person:

see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.