

617Z4 - Pigment Paste, white, for resins

Material number 617Z 4

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

Trade name: 617Z4 - Pigment Paste, white, for resins

Relevant identified uses of the substance or mixture and uses advised againstGeneral use: Pigment paste for lamination resin for orthopedic procedures
For commercial user 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: Physical state at 68 °F and 101.3 kPa: solid

Color: white

Odor: weak

Classification: Skin Irritation - Category 2; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Aquatic toxicity - chronic - Category 2;

Hazard symbols:



Signal word:

Warning

Hazard statements: Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 Toxic to aquatic life with long lasting effects.

Precautionary statements: Wash hands and face thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Avoid release to the environment.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Preparation with epoxide resins and pigments

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	50 - 100 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.

4. First aid measures

General information: Always seek medical assistance if symptoms develop that are possibly due to exposure through skin or eye contact or through inhalation of fumes.

In case of inhalation: Provide fresh air. Put victim at rest and keep warm. Seek medical attention if problems persist.

Following skin contact: Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with soap and plenty of water. Do not use solvents or thinners. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Subsequently consult an ophthalmologist.

After swallowing: Have victim repeatedly drink large amounts of water with activated charcoal. Never give anything by mouth to an unconscious person. Do not induce vomiting. In case of vomiting, position victim on their side. In case of breathing difficulties administer oxygen. Seek medical attention.

Most important symptoms/effects, acute and delayed

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

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Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

Not applicable

Auto-ignition temperature: No data available

Suitable extinguishing media:

Alcohol resistant foam, carbon dioxide, dry chemical powder, water spray jet

Extinguishing media which must not be used for safety reasons:

strong water jet

Specific hazards arising from the chemical

Exposure to fire produces thick, black smoke that is hazardous to health.

Hazardous decomposition byproducts may form with exposure to high temperatures.

E.g.: phenols, Carbon monoxide, carbon dioxide and fume.

Inhaling hazardous decomposing products can cause serious health damage.

phenols

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Cool exposed containers with water spray.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

6. Accidental release measures

Personal precautions:

Wear personal protection equipment. Avoid contact with skin, eyes, and clothing. Provide adequate ventilation. Avoid the formation of aerosol/vapors. Keep unprotected people away. Do not breathe vapor or spray.

Environmental precautions:

Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

Methods for clean-up:

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.

Additional information:

Keep away from heat sources, sparks and open flames.

7. Handling and storage**Handling**

Advices on safe handling:

Make sure there is sufficient air exchange and / or that working rooms are air suctioned.

Avoid the formation of aerosol. Do not breathe vapors.

Do not empty containers with pressure - no pressure vessel!

Handle and open container with care.

Avoid contact with the substance.

Storage

Requirements for storerooms and containers:

Store only in original, tightly closed containers at room temperature.
 Store containers in upright position. storage temperature: 59 - 86 °F.
 Protect against heat /sun rays.

Hints on joint storage:

Keep away from strongly acidic and alkaline materials as well as oxidizers.
 Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Engineering controls

Provide adequate ventilation.
 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 and shoes.
 protective gloves according to OSHA Standard - 29 CFR: 1910.138.
 Glove material: nitrile rubber.
 Breakthrough time: >480 min.
 Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: In case of warming:
 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.
 When using do not eat, drink or smoke.
 Wash hands before breaks and after work. Remove residues with soap and water. Do not use any organic solvents.
 Have eye wash bottle or eye rinse ready at work place.

9. Physical and chemical properties

Information on basic physical and chemical properties

- Appearance: Physical state at 68 °F and 101.3 kPa: solid
 Color: white
- Odor: weak
- Odor threshold: No data available
- pH value: not applicable
- Melting point/freezing point: No data available
- Initial boiling point and boiling range: No data available
- Flash point/flash point range: Not applicable
- Evaporation rate: No data available
- Flammability: No data available
- Explosion limits: No data available
- Vapor pressure: No data available

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Vapor density:	No data available
Density:	No data available
Solubility:	No data available
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	Density at 20°C: 1,73 g/mL Viscosity: pasty

10. Stability and reactivity

Reactivity:	refer to section 10.3
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reactions are known.
Conditions to avoid:	Take precautionary measures against static discharges. Protect against heat /sun rays.
Incompatible materials:	Avoid contact with strong acids, strong bases and strong oxidizing agents.
Hazardous decomposition products:	Hazardous decomposition byproducts may form with exposure to high temperatures. E.g.: phenols, Carbon monoxide, carbon dioxide and fume.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Toxicological effects:	The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
	Acute toxicity (oral): Lack of data.
	Acute toxicity (dermal): Lack of data.
	Acute toxicity (inhalative): Lack of data.
	Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.
	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): Lack of data.
	Aspiration hazard: Lack of data.

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General remarks

Epoxy compounds of low molecular weight irritate eyes, mucous membranes and skin. Repeated skin contact may result in irritations and sensitizations, possibly due to a cross-over sensitization with other epoxy compounds.
Preparation not tested.

12. Ecological information**Ecotoxicity**

Aquatic toxicity: Toxic to aquatic life with long lasting effects.
Following information applies to the component Bisphenol-A-(epichlorhydrin) epoxy resin (molecular weight ≤ 700):
Algae toxicity: EC50 algae: 220 mg/L/ 96 h.
Daphnia toxicity: EC50 Daphnia magna: 1,1 - 3,6 mg/L/ 24 h.
Fish toxicity: LC50 Oncorhynchus mykiss: 1,5 - 7,7 mg/L/ 96 h.

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):
(ASTM D-3960-1, ISO 11890-2) 0 % by weight = 0 g/L
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.
Do not dispose of with household waste.

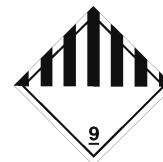
Contaminated packaging

Recommendation: Waste key number:
150104 Metallic packaging
150102 Plastic packaging
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. (Bisphenol A epoxy resin)
 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. (Bisphenol A epoxy resin)
 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

Air transport (IATA)

UN/ID number: UN 3082
 Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A epoxy resin)
 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

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15. Regulatory information**National regulations - U.S. Federal Regulations**

Bisphenol A epoxy resin (molecular-weight < 700): TSCA Inventory: listed; EPA flags XU
TSCA HPVC: not listed

National regulations - Great Britain

Hazchem-Code: •3Z

16. Other information

Text for labeling: Contains 50 - 100 % Bisphenol A epoxy resin (molecular-weight < 700). Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Reason of change: Changes in section 1.3: Corporate headquarters

Date of first version: 10/6/1994

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.