

1. Product and company identification

Product identifier

Trade name: 699P1 - Resin casting sock

Relevant identified uses of the substance or mixture and uses advised against

General use: Intermediate for orthopedic procedures

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
USA

WWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:

Quality Department,

Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),

Email: USRegulatory@ottobock.com

Additional 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: liquid

Form: Paste

Color: Light blue, blue

Odor: Weak

Classification: Skin Irritation - Category 2. Eye Irritation - Category 2. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 3.

Hazard symbols:



Signal word: **Warning**

Hazard statements:

- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- Harmful to aquatic life with long lasting effects.

Precautionary statements:

- Avoid breathing mist/vapors/spray.
- Wash hands and face thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- 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.
- Specific treatment (see 'First aid' on this label).
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

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

Hazards not otherwise classified

Special danger of slipping by leaking/spilling product.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Fabric,
Consisting of: glass fibers and nylon
Impregnated with: resin (liquid, uncured)

Information about resin:

Acrylic acid, copolymer

Following information applies to the component: resin

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 868-77-9	2-Hydroxyethyl methacrylate	40 - 60 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1.
CAS 66492-51-1	(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate	10 - < 25 %	Skin Irritation - Category 2. Sensitization - skin - Category 1B. Aquatic toxicity - chronic - Category 2.
CAS 162881-26-7	Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	< 0.1 %	Sensitization - skin - Category 1A. Aquatic toxicity - chronic - Category 4.

4. First aid measures

General information:	If medical advice is needed, have product container or label at hand.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Apply cortisone spray at early stage. Seek medical attention if problems persist.
Following skin contact:	Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. 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:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

Most important symptoms/effects, acute and delayed

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

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:	213.8 °F
Auto-ignition temperature:	No data available
Suitable extinguishing media:	Water spray jet, alcohol resistant foam, dry extinguishing powder, carbon dioxide
Extinguishing media which must not be used for safety reasons:	Full water jet

Specific hazards arising from the chemical

May form dangerous gases and vapors in case of fire. Furthermore, there may develop: Carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:	Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.
Additional information:	Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water. Contaminated fire-fighting water must be collected separately.

6. Accidental release measures

Personal precautions:	Avoid breathing mist/vapors/spray. Do not get in eyes, on skin, or on clothing. If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Keep unprotected people away.
Environmental precautions:	Do not allow to enter into ground-water, surface water or drains. If necessary, notify appropriate authorities.

Methods for clean-up: Take up mechanically, placing in appropriate containers for disposal. Thoroughly clean surrounding area.

Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid breathing mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage

Requirements for storerooms and containers: Keep container tightly closed and in a well-ventilated place. Keep container dry. Keep only in original container. Protect from heat and direct sunlight. Store containers in upright position. Storage temperature: 50 - 77 °F. Maximum storage period (time): 6 - 9 months.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs. Do not store together with: Mineral acids, bases, oxidizing agents, acid chlorides, radical formers.

8. Exposure controls / personal protection

Engineering controls

Provide good ventilation and/or an exhaust system in the work area. 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. Also use face protection if there is a risk of splashes.

Skin protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material:

Nitrile rubber - Layer thickness: ≥ 0.4 mm

Chloroprene rubber - Layer thickness: ≥ 0.5 mm

Butyl caoutchouc (butyl rubber) - Layer thickness: ≥ 0.7 mm

Breakthrough time: > 30 min

Glove material:

Fluoro rubber - Layer thickness: ≥ 0.4 mm

Breakthrough time: > 480 min

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. In case of inadequate ventilation wear respiratory protection.
Recommendation: Use combination filter type A-P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:
Avoid breathing mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Physical state at 68 °F and 101.3 kPa: liquid
Form: Paste
Color: Light blue, blue

Odor: Weak

Odor threshold: No data available

pH: No data available

Melting point/freezing point: Not determined

Initial boiling point and boiling range: > 392 °F

Flash point/flash point range: 213.8 °F

Evaporation rate: No data available

Flammability: This material is combustible, but will not ignite readily.

Explosion limits: LEL (Lower Explosion Limit): Not determined
UEL (Upper Explosive Limit): Not determined

Vapor pressure: at 68 °F: 1.3 hPa

Vapor density: No data available

Density: 1.1 g/cm³

Solubility: No data available

Partition coefficient: n-octanol/water: 0.47 log K(o/w) (2-Hydroxyethyl methacrylate)
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
1.9 log K(o/w) ((5-Ethyl-1,3-dioxan-5-yl)methyl acrylate)
Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Auto-ignition temperature: No data available

Thermal decomposition: No data available

Viscosity, dynamic: at 68 °F: 500,000 mPa*s

Ignition temperature: Not determined

Solid content: 30 - 60 %

10. Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Exothermic polymerization may occur.
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from direct sunlight.
Incompatible materials:	Mineral acids, bases, oxidizing agents, acid chlorides, radical former
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Toxicological effects:	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (inhalative): Based on available data, the classification criteria are not met.</p> <p>Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.</p> <p>Serious eye damage/irritation: Eye Irritation - Category 2 = Causes serious eye irritation.</p> <p>Sensitisation to the respiratory tract: Lack of data.</p> <p>Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.</p> <p>Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.</p> <p>Carcinogenicity: Based on available data, the classification criteria are not met.</p> <p>Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.</p> <p>Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.</p> <p>Aspiration hazard: Based on available data, the classification criteria are not met.</p>
Other information:	<p>Information about 2-Hydroxyethyl methacrylate (CAS 868-77-9):</p> <p>LD50 Rat, oral: 5,050 mg/kg</p>

Symptoms

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

12. Ecological information

Ecotoxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.
 Information about 2-Hydroxyethyl methacrylate (CAS 868-77-9):
 Fish toxicity:
 LC50 Pimephales promelas (fathead minnow): 227 mg/L/96h
 Information about (5-Ethyl-1,3-dioxan-5-yl)methyl acrylate:
 Fish toxicity:
 LC50 Oncorhynchus mykiss: 4 mg/L/96h
 Daphnia toxicity:
 EC50 Daphnia magna (Big water flea): 20 mg/L/48h

Mobility in soil

No data available

Persistence and degradability

Further details: Product is not readily biodegradable.
 Information about (5-Ethyl-1,3-dioxan-5-yl)methyl acrylate:
 Formation of carbon dioxide: 28%/28d (OECD 301 B)

Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation. Do not allow to enter drains.

Package

Recommendation: Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
 not applicable

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
 Not restricted

Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:
 not applicable

Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

Environmental hazards

Marine pollutant:

no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Proper shipping name:

Not restricted

Sea transport (IMDG)

Proper shipping name::

Not restricted

Marine pollutant:

no

Air transport (IATA)

Proper shipping name::

Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

2-Hydroxyethyl methacrylate:

TSCA Inventory: listed

(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate:

TSCA Inventory: listed

Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide: TSCA Inventory: listed

National regulations - U.S. State Regulations

No data available

16. Other information

Text for labeling:

Contains 40 - 60 % 2-Hydroxyethyl methacrylate, 10 - < 25 %
(5-Ethyl-1,3-dioxan-5-yl)methyl acrylate, < 0.1 % Phenyl
bis(2,4,6-trimethylbenzoyl)-phosphine oxide.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 1 (Slight)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 1 (Slight)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	1
	X

Classification procedure:

Physical hazards: on basis of test data

Health hazards, environmental hazards: calculation method

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
 AS/NZS: Australian Standards/New Zealand Standards
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EC50: Effective Concentration 50%
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 Eye Irritation: Eye irritation
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 LC50: Median lethal concentration
 LD50: Lethal dose 50%
 LEL: Lower Explosion Limit
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OECD: Organisation for Economic Co-operation and Development
 OEL: Occupational Exposure Limit Value
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Sensitization - skin: Skin sensitisation
 Skin Irritation: Skin irritation
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit

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Department issuing data sheet

Contact person: see section 1: Department 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.