

## 617PG5 - OrthoEpoX Hardener GreenLine

Material number 617PG5

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### 1. Product and company identification

#### Product identifier

Trade name: 617PG5 - OrthoEpoX Hardener GreenLine

#### Recommended use and restrictions on use

General use: For orthopedic procedures, for producing molds.

#### Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal Code, city: Burlington, ON L7L 5N5, CA

Canada

WWW: [www.ottobock.ca](http://www.ottobock.ca)

E-mail: [info.canada@ottobock.com](mailto:info.canada@ottobock.com)

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information: Corporate headquarters:

Ottobock SE & Co. KGaA

Max-Näder-Straße 15

Duderstadt

Germany

#### Emergency phone number

**COLLECT, Telephone: (613) 996-6666**

**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 20 °C and 101.3 kPa: liquid

Odor: No data available

Classification: Acute Toxicity 4 (oral). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1.  
Aquatic toxicity - chronic 2.

Hazard symbols:



Signal word: **Danger**

Hazard statements: Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

### Precautionary statements:

Do not breathe mist/vapors/spray.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.

### Regulatory status

This material is considered hazardous by the WHMIS in Canada.

### Hazards not otherwise classified

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

## 3. Composition / Information on ingredients

### Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 39423-51-3	Trimethylolpropane poly(oxypropylene) triamine	25 - 50 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Eye Damage 1. Aquatic toxicity - chronic 2.
CAS 2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	25 - 50 %	Acute Toxicity 4 (oral). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol	2.5 - 10 %	Skin Corrosion 1C. Sensitization - skin 1.
CAS 71074-89-0	Bis[(dimethylamino)methyl]phenol	< 2.5 %	Skin Corrosion 1C. Eye Damage 1.
CAS 112-24-3	Triethylenetetramine	< 2.5 %	Acute Toxicity 4 (dermal). Skin Corrosion 1B. Sensitization - skin 1. Aquatic toxicity - chronic 3.

## 4. First aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. Immediately get medical attention.

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. Seek the attention of an ophthalmologist immediately.

After swallowing: Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. In case of vomiting, position victim on their side. Keep airway open. Immediately get medical attention.

### Most important symptoms and effects, both acute and delayed

Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful if swallowed.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

No data available

Auto-ignition temperature: No data available

Suitable extinguishing media:

Water spray jet, foam, 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 black, Carbon monoxide and carbon dioxide

Special protective equipment and precautions for fire-fighters:

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

Additional information:

Heating will lead to pressure increase: Danger of bursting and explosion. Keep containers cool with water spray.

Do not allow fire water to penetrate into surface or ground water.

Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

## 6. Accidental release measures

Personal precautions:

Provide adequate ventilation. If possible, eliminate leakage.

Do not breathe mist/vapors/spray. Avoid contact with the substance.

Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Keep unprotected people away.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains. If necessary, notify appropriate authorities.

Methods for clean-up:

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Never return spills in original containers for re-use.

Carefully neutralize with acid. Final cleaning. Do not use any organic solvents.

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. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse.  
Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Keep away from heat.  
When handling larger quantities, take precautionary measures against electrostatic charging.  
Keep away from sources of ignition - No smoking.

### Storage

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place.  
Keep container dry. Keep only in the original container.  
Protect from heat and direct sunlight.  
Store containers in upright position.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.  
Do not store together with: Strong oxidizing agents

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
112-24-3	Triethyltetramine	Canada: OEL TWA	3 mg/m <sup>3</sup> ; 0.5 ppm (may be absorbed through the skin)

### Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.  
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: Natural latex, PVC (polyvinyl chloride)  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

**Respiratory protection:** In case of inadequate ventilation wear respiratory protection.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.  
Recommendation: Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

**General hygiene considerations:**  
Do not breathe 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 immediately all contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

### Environmental exposure controls

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

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid
Odor:	No data available
Odor threshold:	No data available
pH:	strongly alkaline
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
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:	>= 1 g/mL
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

## 10. Stability and reactivity

Reactivity:	Refer to subsection "Possibility of hazardous reactions".
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from direct sunlight.

Incompatible materials: No data available

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: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Acute Toxicity 4 (oral) = Harmful if swallowed.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Corrosion 1B = Causes severe skin burns and eye damage.

Serious eye damage/irritation: Eye Damage 1 = Causes serious eye damage.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Sensitization - skin 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.

Other information: Information about Trimethylolpropane poly(oxypropylene)triamine:

LD50 Rat, oral: 550 mg/kg

LD50 Rat, dermal: > 1,000 mg/kg

Information about 3-Aminomethyl-3,5,5-trimethylcyclohexylamine:

LD50 Rat, oral: 1,030 mg/kg

Information about Bis[(dimethylamino)methyl]phenol:

LD50 Rat, oral: 2,169 mg/kg

### Symptoms

In case of ingestion:

Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Burns.

After contact with skin: Irritation, redness, burns.

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

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Toxic to aquatic life with long lasting effects.  
Information about Trimethylolpropane poly(oxypropylene)triamine:  
Fish toxicity:  
LC50: > 100 mg/L/96h (OECD 203)  
Daphnia toxicity:  
EC50 DaphniaSp.: 13 mg/L/48h (OECD 202)  
Algae toxicity:  
EC50 growth rate: 4.4 mg/L/72h  
NOEC: 1 mg/L/72h

### 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: Do not dispose of with household waste.  
Special waste. Incinerate according to applicable local, state and federal regulations.

### Package

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

## 14. Transport information

### UN number

ADR/RID, IMDG, IATA-DGR:  
UN 2735

### UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Trimethylolpropane poly(oxypropylene)triamine)

### Transport hazard class(es)

ADR/RID: Class 8, Code: C7  
IMDG: Class 8, Subrisk -  
IATA-DGR: Class 8

### Packing group

ADR/RID, IMDG, IATA-DGR:  
II

### Environmental hazards

Marine pollutant: yes



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

No data available

### Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN2735  
Shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Trimethylolpropane poly(oxypropylene)triamine)  
TDG class: 8  
Packing group: II  
Special provisions: 16  
Explosive limit and limited quantity index: 1 L  
Passenger carrying road or rail index: 1 L

### Sea transport (IMDG)

UN number: UN 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Trimethylolpropane poly(oxypropylene)triamine)  
Class or division, Subsidiary risk: Class 8, Subrisk -  
Packing Group: II  
EmS: F-A, S-B  
Special Provisions: 274  
Limited quantities: 1 L  
Excepted quantities: E2  
Package - Instructions: P001  
Package - Provisions: -  
IBC - Instructions: IBC02  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T11  
Tank instructions - Provisions: TP1, TP27  
Stowage and handling: Category A.  
Segregation: SG35  
Properties and observations: Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. React violently with acids. Cause burns to skin, eyes and mucous membranes.  
Marine pollutant: yes  
Segregation group: 18



### Air transport (IATA)

UN/ID number: UN 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Trimethylolpropane poly(oxypropylene)triamine)  
Class or division, Subsidiary risk: Class 8  
Packing Group: II  
Hazard label: Corrosive  
Excepted Quantity Code: E2  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y840 - Max. Net Qty/Pkg. 0.5 L  
Passenger and Cargo Aircraft: Pack.Instr. 851 - Max. Net Qty/Pkg. 1 L  
Cargo Aircraft only: Pack.Instr. 855 - Max. Net Qty/Pkg. 30 L  
Special Provisions: A3 A803  
Emergency Response Guide-Code (ERG): 8L

## 15. Regulatory information

### National regulations - Canada

Trimethylolpropane poly(oxypropylene)triamine: DSL: listed  
3-Aminomethyl-3,5,5-trimethylcyclohexylamine: DSL: listed  
2,4,6-Tris(dimethylaminomethyl)phenol: DSL: listed  
Triethylentetramine: DSL: listed

## 16. Other information

Text for labeling: Contains 25 - 50 % Trimethylolpropane poly(oxypropylene)triamine, 25 - 50 %  
3-Aminomethyl-3,5,5-trimethylcyclohexylamine, 2.5 - 10 %  
2,4,6-Tris(dimethylaminomethyl)phenol, < 2.5 % Bis[(dimethylamino)methyl]phenol, <  
2.5 % Triethylentetramine. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:  
Health: 3 (Serious)  
Fire: 2 (Moderate)  
Reactivity: 0 (Minimal)

HMIS Version III Rating:  
Health: 3 (Serious)  
Flammability: 2 (Moderate)  
Physical Hazard: 0 (Minimal)  
Personal Protection: X = Consult your supervisor

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0
	X



# SAFETY DATA SHEET

according to WHMIS 2015 and ANSI Z400.1-2010

## 617PG5 - OrthoEpoxy Hardener GreenLine

Material number 617PG5

Revision date: 30/12/2022  
Version: 1.1  
Replaces version: 1.0  
Language: en-CA  
Date of print: 2/9/2025

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### Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
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  
Bw: Body weight  
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 Damage: Eye damage  
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%  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
MFSU: Manufacture, formulation, supply and use  
NOEC: No Observed Effect Concentration  
OECD: Organisation for Economic Co-operation and Development  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
PVC: Polyvinyl chloride  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Sensitization - skin: Skin sensitisation  
Skin Corrosion: Skin corrosion  
TRGS: Technical Rules for Hazardous Substances  
UN: United Nations  
vPvB: Very persistent and very bioaccumulative  
WHMIS: Workplace Hazardous Materials Information System

Reason of change: General revision

Date of first version: 15/2/2022

### 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.