

617PG5 - OrthoEpoX Hardener GreenLine

Material number 617PG5

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: 617PG5 - OrthoEpoX Hardener GreenLine

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

General use: For orthopaedic procedures, for producing molds.

1.3 Details of the supplier of the safety data sheet

Company name: Otto Bock HealthCare plc
Street/POB-No.: 32, Parsonage Road
Postal Code, city: TW20 OLD Englefield Green, Egham
Surrey
Great Britain

WWW: www.ottobock.co.uk
E-mail: bockuk@ottobock.com
Telephone: 01784 744 900
Telefax: 01784 744 901

Department responsible for information:
Russell Pizzey, Telephone: 01784 744 900

Additional information: Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany

1.4 Emergency telephone number**GIZ-Nord, Germany, Telephone: +49 (0)551-19240****Transport:****CONSULTANK Lutz Harder GmbH (Contract QUALI003)****Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)****SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to EC regulation 1272/2008 (CLP)**

Acute Tox. 4; H302	Harmful if swallowed.
Skin Corr. 1B; H314	Causes severe skin burns and eye damage.
Eye Dam. 1; H318	Causes serious eye damage.
Skin Sens. 1; H317	May cause an allergic skin reaction.
Aquatic Chronic 2; H411	Toxic to aquatic life with long lasting effects.

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2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements:

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P260 Do not breathe mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

Special labelling

Text for labelling:

Contains:
Trimethylolpropane poly(oxypropylene)triamine
3-Aminomethyl-3,5,5-trimethylcyclohexylamine
2,4,6-tris(Dimethylaminomethyl)phenol
Bis[(dimethylamino)methyl]phenol
Triethylentetramine

2.3 Other hazards

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Hazardous ingredients:

Ingredient	Designation	Content	Classification
EC No. 500-105-6 CAS 39423-51-3	Trimethylolpropane poly(oxypropylene) triamine	25 - 50 %	Acute Tox. 4; H302. Acute Tox. 4; H312. Eye Dam. 1; H318. Aquatic Chronic 2; H411.
EC No. 220-666-8 CAS 2855-13-2	3-Aminomethyl-3,5,5- trimethylcyclohexylamine	25 - 50 %	Acute Tox. 4; H302. Skin Corr. 1B; H314. Eye Dam. 1; H318. Skin Sens. 1A; H317. Aquatic Chronic 3; H412.
EC No. 202-013-9 CAS 90-72-2	2,4,6-tris (Dimethylaminomethyl) phenol	2.5 - 10 %	Skin Corr. 1C; H314. Skin Sens. 1B; H317.
EC No. 275-162-0 CAS 71074-89-0	Bis[(dimethylamino) methyl]phenol	< 2.5 %	Skin Corr. 1C; H314. Eye Dam. 1; H318.
EC No. 203-950-6 CAS 112-24-3	Triethylentetramine	< 2.5 %	Acute Tox. 4; H312. Skin Corr. 1B; H314. Skin Sens. 1; H317. Aquatic Chronic 3; H412.

Full text of H- and EUH-statements: see section 16.

Additional information: Information about 3-Aminomethyl-3,5,5-trimethylcyclohexylamine:
ATE oral: 1,030 mg/kg bw
SCL Skin Sens. 1A; H317: c>= 0.001 %

SECTION 4: First aid measures

4.1 Description of 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.

4.2 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.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

May form dangerous gases and vapours in case of fire.

Furthermore, there may develop: Carbon black, Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Special protective equipment for firefighters:

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

Additional information:

Hazchem-Code: 2X

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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. If possible, eliminate leakage.

Do not breathe mist/vapours/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.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning 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.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/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.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment.

Personal protection equipment

Occupational exposure controls

Respiratory protection: In case of inadequate ventilation wear respiratory protection. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. Recommendation: Use filter type A (= against vapours of organic substances) according to EN 14387.

Hand protection: Protective gloves according to EN 374.
Glove material: Natural latex, PVC (polyvinyl chloride)
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to EN 166.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:

Do not breathe mist/vapours/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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid
Odour:	No data available
Odour 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
Vapour pressure:	No data available
Vapour 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
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Explosive properties:	No data available
Oxidizing characteristics:	No data available

9.2 Other information

Additional information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

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10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.

Protect from direct sunlight.

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

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 Tox. 4; H302 = Harmful if swallowed.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Corr. 1B; H314 = Causes severe skin burns and eye damage.

Serious eye damage/irritation: Eye Dam. 1; H318 = Causes serious eye damage.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Skin Sens. 1; H317 = 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.

SECTION 12: Ecological information

12.1 Toxicity

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

12.2 Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 07 02 08* = other still bottoms and reaction residues
MFSU = manufacture, formulation, supply and use
* = Evidence for disposal must be provided.

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.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR:

UN 2735

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.
 (Trimethylolpropane poly(oxypropylene)triamine)

14.3 Transport hazard class(es)

ADR/RID:

Class 8, Code: C7

IMDG:

Class 8, Subrisk -

IATA-DGR:

Class 8

14.4 Packing group

ADR/RID, IMDG, IATA-DGR:

II

14.5 Environmental hazards

Marine pollutant:

yes

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:

ADR/RID: Kemmler-number 80, UN number UN 2735

Hazard label:

8

Special provisions:

274

Limited quantities:

1 L

EQ:

E2

Package - Instructions:

P001 IBC02

Special provisions for packing together:

MP15

Portable tanks - Instructions:

T11

Portable tanks - Special provisions:

TP1 TP27

Tank coding:

L4BN

Tunnel restriction code:

E

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Sea transport (IMDG)

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.
Segregation group:	18

Air transport (IATA)

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

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 2X
 No data available

National regulations - EC member states

Labelling of packaging with <= 125mL content



Signal word:

Danger

Hazard statements:

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

Precautionary statements:

P260

Do not breathe mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER/doctor.

Further regulations, limitations and legal requirements:

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive] Environmental hazards: Code E2, Quantity threshold 200 000 kg / 500 000 kg

Use restriction according to REACH annex XVII, no.: 3, 75

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

H302 = Harmful if swallowed.

H312 = Harmful in contact with skin.

H314 = Causes severe skin burns and eye damage.

H317 = May cause an allergic skin reaction.

H318 = Causes serious eye damage.

H411 = Toxic to aquatic life with long lasting effects.

H412 = Harmful to aquatic life with long lasting effects.

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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
AS/NZS: Australian Standards/New Zealand Standards
ATE: Acute toxicity estimate
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC50: Effective Concentration 50%
EC: European Community
EN: European Standard
EU: European Union
MFSU: Manufacture, formulation, supply and use
IATA: International Air Transport Association
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
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
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
SCL: Specific concentration limit
UN: United Nations
vPvB: Very persistent and very bioaccumulative

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.