

## 1 Identification

### Product identifier

Trade name: 616T52 - ThermoLyn rigid (polystyrene)

### Recommended use and restrictions on use

General use: Article for orthopedic procedures  
Processing at Processing temperature and Forming temperature  
(refer to section 9: Physical and chemical properties)  
Reserved for industrial and professional use.

### 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)

Email: [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 telephone number

COLLECT, Telephone: (613) 996-6666

## 2 Hazard identification

### Classification

Article not subject to hazard labelling or classification.

### Information elements

not applicable

### Other hazards known to the supplier with respect to the product

Processing by heating can produce vapors. Processing, e.g. by cutting, sawing or grinding, can produce particles and dust. For risks which have to be observed thereby, see section 7: Handling, section 8: Exposure controls / personal protection and section 11: Toxicology.

In case of heating: risk of burns.  
dust/vapours: mild irritant.

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### 3 Composition/Information on ingredients

#### Material/substance

Chemical name: Thermoplastic-Polystyrene  
copolymer based on Styrene and 1,3-Butadiene

### 4 First-aid measures

#### Description of necessary first-aid measures

General information: For mechanical processing: dust formation.  
In case of heating: development of gas/vapour possible.

In case of inhalation: When vapours form:  
Provide fresh air. Seek medical treatment in case of troubles.

In case of skin contact: Remove residues with water.  
If burned by hot product, quench immediately with cold tap water.  
Do not peel solidified product off the skin. Consult physician immediately.

In case of eye contact: In the case of the formation of dust / When vapours form:  
Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.  
In case of troubles or persistent symptoms, consult an ophthalmologist.

#### Most important symptoms and effects, whether acute or delayed

In case of heating: risk of burns.  
dust/vapours: mild irritant.

#### Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

### 5 Fire-fighting measures

#### Suitable and unsuitable extinguishing media

Suitable extinguishing media: Water spray jet, foam, extinguishing powder, carbon dioxide.

Unsuitable extinguishing media: Full water jet

#### Specific hazards arising from the product

In case of fire may be liberated: carbon monoxide and carbon dioxide.

#### Special protective equipment and precautions for fire-fighters

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

If necessary: Suitable protective clothing.  
In case of development of vapours or dust:  
Provide fresh air. Do not inhale vapours or dust particles. Wear protective equipment.

#### Environmental precautions:

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

### Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

## 7 Handling and storage

### Precautions for safe handling

Advices on safe handling: Make sure that the processing machines are well equipped with suction and ventilation systems.

If necessary: With the formation of dust, use a dust mask.  
In case of development of vapours or dust:  
Provide fresh air. Do not inhale vapours or dust particles. Wear protective equipment.

#### Precautions against fire and explosion:

Avoid open flames.  
Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

#### Requirements for storerooms and containers:

Keep only in the original container. Keep container dry.  
Protect from direct sunlight.  
Keep at temperature not exceeding 50 °C.

#### Hints on joint storage:

Keep away from aromatic hydrocarbons.

## 8 Exposure controls/Personal protection

### Control parameters

#### Occupational exposure limit values:

Type	Limit value
Canada: Alberta, OEL 8 hour	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
Canada: Alberta, OEL 8 hour	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
Canada: BC, OEL TWA	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
Canada: BC, OEL TWA	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
Canada: Québec, VEMP	10 mg/m <sup>3</sup> (total dust)
Canada: Québec, VEMP	3 mg/m <sup>3</sup> (total dust, respirable fraction)

### Appropriate engineering controls

Provide for constant fresh air supply during and after processing.

### Individual protection measures, such as personal protective equipment

Respiratory protection:	When vapours form: Use filter type A (= against vapours of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2. For mechanical processing: particulates filter OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2
Hand protection:	If necessary: Protective gloves against thermic risks. For machine processing: Protective gloves against mechanical risks. OSHA Standard - 29 CFR: 1910.138 Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
General hygiene considerations:	The following shall be existing in the immediate working surrounding: emergency shower installed. Avoid generation of dust. Wash hands before breaks and after work. In case of warming: Do not breathe vapours.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	Form: solid, plate
Colour:	transparent, colourless
Odour:	weak characteristic
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	> 350 °C
pH:	No data available
Water solubility:	insoluble
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	1.01 g/cm <sup>3</sup>
Vapour density:	No data available

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Particle characteristics: Not applicable

### Additional information

Ignition temperature: > 400 °C (DIN 51594)

Additional information: Softening temperature: 50 - 90 °C  
Processing temperature/Forming temperature: 170 °C / 338 °F

## 10 Stability and reactivity

Reactivity: refer to section 10.3

Chemical stability: Stable under recommended storage conditions.  
Maximum storage period (time) 3 year(s)

Possibility of hazardous reactions: No dangerous reactions are known.

Conditions to avoid: Avoid temperatures exceeding 170 °C / 338 °F °C.  
Protect from direct sunlight.  
Keep at temperature not exceeding 50 °C.

Incompatible materials: Aromatic hydrocarbons

Hazardous decomposition products: On heating or in case of fire toxic gases may form.  
Formation of styrene, 1,3-Butadiene, carbon monoxide and carbon dioxide.

## 11 Toxicological information

### Information on the likely routes of exposure

No data available

### Health hazard information

Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Lack of data.  
Serious eye damage/irritation: Lack of data.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Lack of data.  
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.

### Symptoms

In case of inhalation: In case of heating: risk of burns.  
After contact with skin: In case of heating: risk of burns.  
After eye contact: dust/vapours: mild irritant.

## 12 Ecological information

### Ecotoxicity

Further details: No data available

### Persistence and degradability

Further details: Product is not biodegradable.

### Bioaccumulative potential

Partition coefficient — n-octanol/water:

No data available

### Mobility in soil

No data available

### Other adverse effects

General information: Discharge into the environment must be avoided.

## 13 Disposal considerations

### Waste treatment methods

#### Product

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

#### Package

Recommendation: Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## 14 Transport information

### UN number

TDG, IMDG, IATA-DGR: not applicable

### UN proper shipping name

TDG, IMDG, IATA-DGR: Not restricted

### Transport hazard class

TDG, IMDG, IATA-DGR: not applicable

### Packing group

TDG, IMDG, IATA-DGR: not applicable

### Environmental hazards

Marine pollutant: no

### Special precautions in connection with transport or conveyance either within or outside the premises

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

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 - Canada

No data available

### Further regulations, limitations and legal requirements

No data available

## 16 Other information

Revision date: 17/12/2025

Date of first version: 30/5/2008

Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022  
General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)

### Abbreviations and acronyms:

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  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
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  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
TDG: Transportation of Dangerous Goods Regulation in Canada  
TRGS: Technical Rules for Hazardous Substances  
TSCA: Toxic Substance Control Act  
vPvB: Very persistent and very bioaccumulative

Literature: At processing: See information supplied by the manufacturer.

### 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.