

## 1 Identification

### Product identifier

Trade name: 83L1 - Silicon Primer

### Recommended use and restrictions on use

General use: Primer for orthopedic procedures. 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

Email: info.canada@ottobock.com

Telephone: (800) 665-3327

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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

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

## 2 Hazard identification

### Classification

Flammable Liquid 2

Skin Irritation 2

Eye Damage 1

Specific Target Organ Toxicity (Single Exposure) 3

Aspiration Toxicity 1

Aquatic toxicity - chronic 2

Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye damage.

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

Toxic to aquatic life with long lasting effects.

### Information elements

Symbols:



Signal word:

**Danger**

**Hazard statements:**

- Highly flammable liquid and vapour.
- May be fatal if swallowed and enters airways.
- Causes skin irritation.
- Causes serious eye damage.
- May cause drowsiness or dizziness.
- Toxic to aquatic life with long lasting effects.

**Precautionary statements:**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- 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.
- IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- IF ON SKIN: Wash with plenty of water/soap.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- Call a POISON CENTER/doctor if you feel unwell.
- Specific treatment (see 'First aid' on this label).
- Do NOT induce vomiting.
- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- In case of fire: Use ... to extinguish.
- Collect spillage.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a well-ventilated place. Keep cool.
- Store locked up.

Dispose of contents/container to hazardous or special waste collection point.

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

- Potentially explosive mixtures may form if adequate ventilation is not provided.
- Inhaling can lead to irritations of the respiratory tract and mucous membrane.
- Higher doses may lead to a narcotic effect.
- Special danger of slipping by leaking/spilling product.

## 3 Composition/Information on ingredients

### Mixture

Chemical name: Silicone

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 64742-49-0	Naphtha (petroleum), hydrotreated light	70 - 90 %	Flammable Liquid 2. Skin Irritation 2. Specific Target Organ Toxicity (Single Exposure) 3. Aspiration Toxicity 1. Aquatic toxicity - chronic 2.
CAS 2551-83-9	Allyltrimethoxysilane	< 10 %	Flammable Liquid 3. Acute Toxicity 4 (inhalative).
CAS 5593-70-4	Titanium tetrabutanolate	< 10 %	Flammable Liquid 3. Skin Irritation 2. Eye Damage 1. Specific Target Organ Toxicity (Single Exposure) 3.

The actual concentration or concentration range is withheld as a trade secret.

Additional information: With exposure to moisture, product will release methanol and butanol.  
The maximum workplace exposure limits are, where necessary, listed in section 8.

## 4 First-aid measures

### Description of necessary 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:	Provide fresh air. Respiratory complaints: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical attention.
In case of swallowing:	Rinse mouth with water. Do NOT induce vomiting. In case of vomiting, lay at least head on side. Immediately get medical attention.
In case of skin contact:	After contact with skin, wash immediately with soap and plenty of water. If skin irritation occurs: Consult physician immediately.
In case of 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.

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

May be fatal if swallowed and enters airways. Causes serious eye damage. Causes skin irritation. May cause drowsiness or dizziness.  
Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
Higher doses may lead to a narcotic effect.

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

Treat symptomatically. Subsequent observance for pneumonia and lung oedema.

## 5 Fire-fighting measures

### Suitable and unsuitable extinguishing media

Suitable extinguishing media:  
Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide, sand

Unsuitable extinguishing media:

Full water jet

### Specific hazards arising from the product

Highly flammable liquid and vapour.

With exposure to moisture, product will release methanol and butanol.

vapours form potentially explosive mixtures with air, which are heavier than air. Air-vapour mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.

May produce carbon oxides and formaldehyde if heated to decomposition. Furthermore, there may develop: metallic compounds, silicon compounds.

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

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

Additional information:

Do not inhale explosion and combustion gases. Cool endangered containers with water spray and, if possible, remove from danger zone.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. 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, protective equipment and emergency procedures

Keep away from sources of ignition - No smoking.

Avoid contact with skin and eyes. Do not breathe vapour/aerosol.

Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Provide adequate ventilation.

If possible, eliminate leakage. Keep unprotected people away.

Cordon off downwind area at risk and warn inhabitants.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains. Danger of explosion!

In case of release, notify competent authorities.

### 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).

Beware of re-ignition. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information:

Use only non-sparking tools.

vapours form potentially explosive mixtures with air, which are heavier than air. Air-vapour mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.

With exposure to moisture, product will release methanol and butanol.

## 7 Handling and storage

### Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe vapour/aerosol. 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.  
Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. The use of local exhaust ventilation is recommended. Have eye wash bottle or eye rinse ready at work place.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.  
Take precautionary measures against static discharges.  
Electrical equipment must be explosion protected according to standards.  
vapours form explosive mixtures with air.

### Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed. Store at room temperature in a dry and well ventilated area.  
Protect from moisture contamination.

Hints on joint storage:

Keep away from oxidizing agents.  
Do not store together with Organic peroxides.  
Keep away from food, drink and animal feedingstuffs.  
Do not store together with combustible or self-igniting materials or any highly flammable solids.

Further details:

With exposure to moisture, product will release methanol and butanol.

## 8 Exposure controls/Personal protection

### Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
64742-49-0	Naphtha (petroleum), hydrotreated light	Canada: BC, OEL TWA	100 ppm
67-56-1	Methanol	Canada: Alberta, OEL 15 min	328 mg/m <sup>3</sup> ; 250 ppm (may be absorbed through the skin)
		Canada: Alberta, OEL 8 hour	262 mg/m <sup>3</sup> ; 200 ppm (may be absorbed through the skin)
		Canada: BC, OEL STEL	250 ppm (may be absorbed through the skin)
		Canada: BC, OEL TWA	200 ppm (may be absorbed through the skin)
		Canada: Québec, VECD	328 mg/m <sup>3</sup> ; 250 ppm (may be absorbed through the skin)
		Canada: Québec, VEMP	262 mg/m <sup>3</sup> ; 200 ppm (may be absorbed through the skin)
71-36-3	Butan-1-ol	Canada: Alberta, OEL 8 hour	60 mg/m <sup>3</sup> ; 20 ppm
		Canada: BC, OEL Ceiling	30 ppm
		Canada: BC, OEL TWA	15 ppm
		Canada: Québec, VEMP	20 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
67-56-1	Methanol	USA: ACGIH-BEI, urine	15 mg/L	Methanol	end of exposure or end of shift

### Appropriate engineering controls

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

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

**Respiratory protection:** Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Recommendation: Use filter type A (= against vapours of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

**Hand protection:** Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: Nitrile rubber, polyvinyl alcohol, chloroprene rubber, fluoro rubber, EVAL Layer thickness: ≥ 0.35 mm Breakthrough time: > 120 min

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.

**Body protection:** Wear suitable protective clothing.  
In case of handling larger quantities: Flame-resistant antistatic protective clothing

**General hygiene considerations:**  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Do not get in eyes, on skin, or on clothing.  
Contaminated work clothing should not be allowed out of the workplace. Do not breathe vapour/aerosol. Take off immediately all contaminated clothing and wash it before reuse.  
When using do not eat, drink or smoke.  
Wash hands before breaks and after work.  
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

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	colourless up to yellowish
Odour:	Weak
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	> 90 °C
Flammability:	Highly flammable liquid and vapour.
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	7 °C (c.c.)
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH:	No data available
Kinematic viscosity:	at 25 °C: 0.63 mm <sup>2</sup> /s
Water solubility:	Insoluble
Partition coefficient — n-octanol/water:	0.88 log P(o/w) (Titanium tetrabutanolate) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected. ≥ 4 log P(o/w) (Naphtha (petroleum), hydrotreated light) Based on the n-octanol/water partition coefficient accumulation in organisms is possible.
Vapour pressure:	No data available
Density and/or relative density	at 20 °C: 0.71 g/mL
Vapour density:	No data available
Particle characteristics:	Not applicable

### Additional information

**Explosive properties:** vapours may form explosive mixtures with air.

**Oxidizing characteristics:** Not oxidising

Additional information: Incapable of spontaneous heating

## 10 Stability and reactivity

- Reactivity:** Highly flammable liquid and vapour.  
vapours may form explosive mixtures with air.
- Chemical stability:** Stable under recommended storage conditions.
- Possibility of hazardous reactions:**  
vapours form potentially explosive mixtures with air, which are heavier than air. Air-vapour mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.  
During hydrolysis, a small amount of methanol is produced.
- Conditions to avoid:** Keep away from heat. Keep away from sources of ignition - No smoking.  
Protect from direct sunlight.  
Take precautionary measures against static discharges.
- Incompatible materials:** Keep away from oxidizing agents. Protect from moisture contamination.
- Hazardous decomposition products:**  
With exposure to moisture, product will release methanol and butanol. Measurements taken at temperatures exceeding 150 °C have revealed that a small quantity of formaldehyde splits off through oxidative decomposition.

## 11 Toxicological information

### Information on the likely routes of exposure

No data available

### Health hazard information

- Acute toxicity (oral):** Based on available data, the classification criteria are not met.  
ATEmix (estimated) > 5,000 mg/kg
- Acute toxicity (dermal):** Based on available data, the classification criteria are not met.  
ATEmix (estimated) > 2,000 mg/kg
- Acute toxicity (inhalative):** Lack of data.
- Skin corrosion/irritation:** Skin Irritation 2 = Causes skin irritation.
- Serious eye damage/irritation:** Eye Damage 1 = Causes serious eye damage.
- 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):** Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.
- Specific target organ toxicity (repeated exposure):** Lack of data.
- Aspiration hazard:** Aspiration Toxicity 1 = May be fatal if swallowed and enters airways.



### Other information:

Information about Naphtha (petroleum), hydrotreated light (CAS 64742-49-0):

LD50 Rat, oral: > 5,000 mg/kg

LD50 Rabbit, dermal: > 2,000 mg/kg

LC50 Rat, inhalative (vapour): > 12 mg/L/6h, no mortality occurred

Information about Allyltrimethoxysilane (CAS 2551-83-9):

LD50 Rat, oral: 7,120 mg/kg (By analogy)

LD50 Rabbit, dermal: 3,259 mg/kg (By analogy)

LC50 Rat, inhalative (vapour): 16.8 mg/L/4h (By analogy)

Information about Titanium tetrabutanolate (CAS 5593-70-4):

LD50 Rat, oral: 4,220 mg/kg

LD50 Rabbit, dermal: 5,300 mg/kg

LC50 Rat, inhalative (dust/mist): 11 mg/L/4h

### Symptoms

release of Methanol: Danger of serious damage to health by prolonged exposure.: > 200 mg/kg.

In case of inhalation: drowsiness, fatigue, Disorientation, headache, nausea.

Leads to unconsciousness in high concentrations.

Harmful: may cause lung damage if swallowed. Danger of aspiration.

In case of ingestion: Intake of larger quantities can cause stomach troubles.

After contact with skin: Irritant.

Prolonged skin contact may degrease the skin and may produce dermatitis.

After eye contact:

Upon direct contact with eyes may cause burning, tearing, redness. Prolonged eye contact may damage the cornea.

## 12 Ecological information

### Ecotoxicity

#### Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Information about Naphtha (petroleum), hydrotreated light (CAS 64742-49-0):

Fish toxicity:

LL50 Oncorhynchus mykiss: 12 mg/L/96h (OECD 203)

Daphnia toxicity:

EL50 Daphnia magna (Big water flea): 4.5 mg/L/48h (OECD 202)

NOELR Daphnia magna (Big water flea): 2.6 mg/L/21d (OECD 211)

Algae toxicity:

ErL50 Pseudokirchneriella subcapitata (green algae): 3.1 mg/L/72h (OECD 201)

NOELR Pseudokirchneriella subcapitata (green algae): 0.5 mg/L/72h (OECD 201)

### Persistence and degradability

#### Further details:

Biodegradability:

Information about Naphtha (petroleum), hydrotreated light (CAS 64742-49-0):

Oxygen consumption: 77%/28d (OECD 301 F), easily bio-degradable

### Bioaccumulative potential

Partition coefficient — n-octanol/water:

0.88 log P(o/w) (Titanium tetrabutanolate)

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

$\geq 4$  log P(o/w) (Naphtha (petroleum), hydrotreated light)

Based on the n-octanol/water partition coefficient accumulation in organisms is possible.

### Mobility in soil

No data available

### Other adverse effects

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

## 13 Disposal considerations

### Waste treatment methods

#### Product

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

#### Package

Recommendation: Waste key number:  
150102 Plastic packaging  
150104 metallic packaging  
Dispose of waste according to applicable legislation.  
Non-contaminated packages may be recycled.

## 14 Transport information

### UN number

TDG: UN1993  
IMDG, IATA-DGR: UN 1993

### UN proper shipping name

TDG: UN 1993, Flammable liquid, n.o.s. (Naphtha (petroleum), hydrotreated light)  
IMDG, IATA-DGR: UN 1993, FLAMMABLE LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light)

### Transport hazard class

TDG: 3  
IMDG: Class 3, Subrisk -  
IATA-DGR: Class 3



### Packing group

TDG, IMDG, IATA-DGR: II



### Environmental hazards

Marine pollutant: yes

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

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

Special Provisions: 16, 150  
Explosive limit and limited quantity index: 1 L  
Passenger carrying road or rail index: 5 L  
Marine pollutant: P

#### Sea transport (IMDG)

EmS: F-E, S-E  
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: T7  
Tank instructions - Provisions: TP1, TP8, TP28  
Stowage and handling: Category B.  
Properties and observations: -  
Marine pollutant: yes  
Segregation group: none

#### Air transport (IATA)

Proper shipping name: UN 1993, FLAMMABLE LIQUID, N.O.S.  
(Naphtha (petroleum), hydrotreated light)  
Hazard label: Flamm. liquid  
Excepted Quantity Code: E2  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L  
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L  
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L  
Special Provisions: A3  
Emergency Response Guide-Code (ERG): 3H

### 15 Regulatory information

#### National regulations - Canada

Naphtha (petroleum), hydrotreated light: DSL: listed

Allyltrimethoxysilane: DSL: listed

Titanium tetrabutanolate: DSL: listed

Methanol: DSL: listed

Butan-1-ol: DSL: listed

#### Further regulations, limitations and legal requirements

No data available

### 16 Other information

Text for labelling:	Contains: Naphtha (petroleum), hydrotreated light Titanium tetrabutanolate
Revision date:	17/12/2025
Date of first version:	17/3/1999
Reason of change:	Changes in section 1: UFI General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022
Classification procedure:	Physical hazards: on basis of test data Health hazards, environmental hazards: calculation method

### Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
 AS/NZS: Australian Standards/New Zealand Standards  
 Aspiration Toxicity: Aspiration toxicity  
 ATEmix: Acute Toxicity Estimate of mixture  
 CAS: Chemical Abstracts Service  
 CFR: Code of Federal Regulations  
 CLP: Classification, Labelling and Packaging  
 DMEL: Derived minimal effect level  
 DNEL: Derived no-effect level  
 DSL: Domestic Substances List  
 EC: European Community  
 EL50: Effective loading rate 50%  
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
 EN: European Standard  
 EQ: Excepted quantities  
 Eye Damage: Eye damage  
 Flammable Liquid: Flammable liquid  
 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%  
 log P(o/w): Partition coefficient: octanol/water  
 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  
 Skin Irritation: Skin irritation  
 STOT SE: Specific target organ toxicity - single exposure  
 TDG: Transportation of Dangerous Goods Regulation in Canada  
 TLV: Threshold Limit Value  
 TRGS: Technical Rules for Hazardous Substances  
 UFI: Unique Formula Identifier  
 UN: United Nations  
 vPvB: Very persistent and very bioaccumulative  
 WEL: Workplace Exposure Limit

### 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.