

Safety Data Sheet
in accordance with HSNO

Printing date 06.03.2020

Version number 1

Revision: 06.03.2020

1 Identification of the substance or mixture and of the supplier

- **Product identifier**
- **Trade name:** Lithium ion batteries or lithium polymer batteries for Bluephase LED polymerization lights
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Auxiliary for manufacture of dental prothesis
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Ivoclar Vivadent AG
Bendererstrasse 2
9494 Schaan
PRINCIPALITY OF LIECHTENSTEIN
Tel: +423 235 35 35 / Fax: +423 235 33 60
- **Importer:**
Ivoclar Vivadent Ltd.
12 Omega St, Rosedale, Auckland
New Zealand
Tel: + 64 9 914 9999 / Fax: + 64 9 914 9990
- **Further information obtainable from:**
Regulatory Affairs
sds@ivoclarvivadent.com
- **Emergency telephone number:** 0800 764 766 (National Poison Centre - 24 hours / 7 days)

2 Hazards identification

- **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonised System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/Information on ingredients

- **Chemical characterisation:** Mixtures
- **Description:**
The materials contained in the battery may only become a hazard if the battery or the cell is damaged or if the battery is physically or electrically abused.
- **Dangerous components:** Void

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4 First aid measures

- **Description of first aid measures**
- **General information:**
In case of contact with the materials from a damaged or ruptured cell or battery see the following first aid measures:
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Rinse with water.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Fire-extinguishing powder
Carbon dioxide
- **Special hazards arising from the substance or mixture**
Toxic gases will be formed if cells or battery are involved in a fire. Cells or battery may flame or leak potentially hazardous organic vapor if exposed to excessive heat, fire or over-voltage conditions. Damaged or opened cells or batteries may result in rapid heat and the release of flammable vapors.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid inhalation of any vapors that may be emitted.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
The material contained within the batteries would only be expelled under abusive conditions.
Spilled substances with dry sand or vermiculite.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Only adequately trained personnel should handle this product.
For use in dentistry only.
Do not store batteries in a manner that allows terminals to short circuit.
- **Information about fire - and explosion protection:**
Please note that lithium-polymer batteries may react with explosion, fire, and smoke development if handled improperly or mechanically damaged.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Do not store at temperatures above 40 °C / 104 °F (or 60 °C / 140 °F for a short period).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** Under normal conditions release of ingredients does not occur.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Usual hygienic measures for dental practice and dental laboratories.
- **Respiratory protection:**
Not required.
If the battery is damaged:
In case of battery rupture and fumes, use self-contained full-face respiratory equipment.
- **Protection of hands:**
Not required.
If the battery is damaged:



Protective gloves

- **Material of gloves**
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Chloroprene rubber, CR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
Not required.

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If the battery is damaged:

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Tightly sealed goggles

Wear safety goggles or glasses with side shields if handling a leaking or ruptured battery.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Solid
Colour:	Not determined.
Odour:	Odourless
Odour threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/freezing point:	Not applicable.
Initial boiling point and boiling range:	Not applicable.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapour pressure:** Not applicable.

Density:	Not applicable.
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.

· **Solubility in / Miscibility with water:** Not applicable.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

Dynamic:	Not applicable.
Kinematic:	Not applicable.

· **Solvent content:**

Solids content:	100.0 %
Other information	No further relevant information available.

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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal handling and storage conditions.
- **Thermal decomposition / conditions to be avoided:**
Do not short circuit battery.
Do not store at temperatures above 40 °C / 104 °F (or 60 °C / 140 °F for a short period).
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
The electrolytes and electrolyte fumes released during explosion, fire, and smoke development are toxic and corrosive.
None under normal conditions of storage and use.

11 Toxicological information

- **Information on toxicological effects**
- **Additional toxicological information:**
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Other information:**
When properly used or disposed rechargeable Lithium-Ion/Polymer-Batteries do not present environmental hazard.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Disposal must be made according to official regulations.
May explode if disposed of in fire.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number · ADR/RID/ADN, IMDG, IATA	UN3480
· UN proper shipping name · ADR/RID/ADN · IMDG, IATA	3480 LITHIUM ION BATTERIES LITHIUM ION BATTERIES
· Transport hazard class(es) · ADR/RID/ADN · Class · Label	9 (M4) Miscellaneous dangerous substances and articles. 9
· IMDG, IATA · Class · Label	9 Miscellaneous dangerous substances and articles. 9A
· Packing group · ADR/RID/ADN, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Miscellaneous dangerous substances and articles. - F-A,S-I
· Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	The batteries meets all the requirements of special provisions ADR 188, IMDG 188 and IATA DGR packaging instructions 965 Section IB.
· ADR/RID/ADN · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E0 Not permitted as Excepted Quantity
· Transport category · Tunnel restriction code	2 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 3480 LITHIUM ION BATTERIES, 9

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15 Regulatory information

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

· **New Zealand Inventory of Chemicals**

None of the ingredients is listed.

· **HSNO Approval numbers**

None of the ingredients is listed.

· **GHS label elements** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative