Safety Data Sheet
according to WHS Regulations

Printing date 06.03.2020 *Version number 1* *Revision: 28.10.2019*

Not classified as hazardous according to criteria of Australian Safety and Compensation Council.

1 Identification

· **Product identifier**

· **Trade name:** ***Bluephase LED polymerization lights packed with lithium ion batteries or lithium polymer batteries***

· **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 Pty. Ltd.
1- 5 Overseas Drive
Noble Park North VIC 3174
Tel: + 61 3 9795 9599 / Fax: + 61 3 9795 9645

· **Further information obtainable from:**
Regulatory Affairs
sds@ivoclarvivadent.com
· **Emergency telephone number:** *131 126 (Poisons Information Centre - 24 hours / 7 days)*

2 Hazard(s) 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 and Information on Ingredients

· **Chemical characterisation: Substances** *Rechargable Lithium-Ion-Batterie or Lithium-Polymer-Batterie*
· **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.

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· **Dangerous components:** Void

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 masures:
· **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 and 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:

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**	
· **ADG, IMDG, IATA**	UN3481
· **UN proper shipping name**	
· **ADG**	3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT
· **IMDG, IATA**	LITHIUM ION BATTERIES PACKED WITH EQUIPMENT
· **Packing group**	
· **ADG, IMDG, IATA**	Void
· **Environmental hazards:**	
· **Marine pollutant:**	No
· **Special precautions for user**	Not applicable.
· **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 966 Section II.
· **ADG**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **Transport category**	2
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	0
· **Excepted quantities (EQ)**	Code: E0 Not permitted as Excepted Quantity
· **UN "Model Regulation":**	UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, 9

15 Regulatory information

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

· **Australian Inventory of Chemical Substances**

None of the ingredients is listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

· **GHS label elements** Void
· **Hazard pictograms** Void
· **Signal word** Void

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· **Hazard statements** Void

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** Substance is not 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