Zhermack	Zhermack S.p.a	Revision nr. 1 Dated 13/11/2013
BETOND INNOVATION		Printed on 14/11/2013
	C203040/C203120/ C203125-B - ELITE HD+ LIGHT BODY FAST SET-BASE	
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	Safety data sheet	
<b>SECTION 1. Identification</b>	n of the substance/mixture and of the company/unde	ertaking
1.1. Product identifier		
Code:	C203040/C203120/ C203125-B	
Product name	ELITE HD+ LIGHT BODY FAST SET-BASE	
1.2. Relevant identified uses of the	e substance or mixture and uses advised against	
Intended use Addition silicone for der	ntal impression material.	
1.3. Details of the supplier of the s	safatu data shaat	
Name	Zhermack S.p.a	
Full address District and Country	Via Bovazecchino 45021 Badia Polesine (RO) Italy	
	Tel. +39 0425-597611	
	Fax +39 0425-53596	
e-mail address of the competent per		
responsible for the Safety Data Shee	et msds@zhermack.com	
1.4. Emergency telephone number	r	
For urgent inquiries refer to	CAV Italia: Centro Antiveleni di Milano: 02 66101029; (	Centro Antiveleni di Pavia: 0382
	24444; Centro Antiveleni di Bergamo: 800 883300; Cen 7947819; Centro Antiveleni di Roma: 06 3054343; Cen 49978000; Centro Antiveleni di Napoli: 081 7472870	ntro Antiveleni di Firenze: 055
	Servicio de Información Toxicológica (España): + 34 9	01 562 04 20 (24h/365 días)
	Numéro ORFILA (INRS-France): + 33 (0)1 45 42 59 59 (	24h/ 7 jours sur 7)
	UK Emergency number: 844 892 0111 (24 hours)	
	Deutschland Notruf: BERLIN Tel.: 030/19240; HOMBU 0228/19240; MAINZ Tel.: 06131/19240; ERFURT Tel.: 0 089/19240; FREIBURG Tel.: 0761/19240; NÜRNBERG 1 Tel.:0551/19 240	361/730 730; MÜNCHEN Tel.:
SECTION 2. Hazards ider	ntification.	
2.1. Classification of the substanc	e or mixture.	

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to EC Regulation 1907/2006 and subsequent amendments.

### 2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:

Zhermack BEYOND INNOVATION	Zhermack S.p.a			
	C203040/C203120/ C203125-B - ELITE HD- LIGHT BODY FAST SET-BASE			
2.2. Label elements.				

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Contains:	QUARTZ
Precautionary statements:	
Hazard statements:	
Signal words:	
Hazard pictograms:	

tamo.	QUANTZ
	CRISTOBALITE

Safety data sheet available for professional users on request.

2.3. Other hazards.

There is no exposure to breathable free crystalline silica during normal use of this product. For more information see section 11.

## **SECTION 3. Composition/information on ingredients.**

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification. QUARTZ	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
CAS. 14808-60-7 EC. 238-878-4	19 - 29	Xn R48/20	STOT RE 1 H372
INDEX			
CRISTOBALITE			
CAS. 14464-46-1 EC. 238-455-4	3 - 5	Xn R48/20	STOT RE 1 H372
INDEX			
ALKYL PHENOL POLYETHYLENE GLYCOL ETHER CAS. 9016-45-9	0,5 - 1	Xi R36/38, N R51/53	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Aquatic Chronic 2 H411
EC. 500-024-6			
INDEX			

Note: Upper limit is not included into the range. The full wording of the Risk (R) and hazard (H) phrases is given in section 16 of the sheet.

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### **SECTION 4. First aid measures.**

#### 4.1. Description of first aid measures.

EYES: Remove contact lenses, if present Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately. INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

#### 4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

#### 4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

### **SECTION 5. Firefighting measures.**

#### 5.1. Extinguishing media.

#### SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

#### 5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

#### 5.3. Advice for firefighters.

#### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

### **SECTION 6.** Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.



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# LIGHT BODY FAST SET-BASE

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Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

#### 6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

## **SECTION 7. Handling and storage.**

#### 7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

#### 7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s).

Information not available.

### **SECTION 8. Exposure controls/personal protection.**

#### 8.1. Control parameters.

#### Regulatory References:

United Kingdom	EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations (as amended).
Éire	Code of Practice Chemical Agent Regulations 2011.
OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive
TLV-ACGIH	2000/39/EC. ACGIH 2012



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QUARTZ					
Threshold Limit Value.					
Туре	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
WEL	UK	0,3			
OEL	IRL	0,1			
TLV-ACGIH		0,025			
CRISTOBALITE					

#### Threshold Limit Valu

Inreshold Limit Value.					
Туре	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	IRL	0,1			
TLV-ACGIH		0,025			

#### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

#### 8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protection equipment, make sure that the workplace is well aired through effective local aspiration. Personal protection equipment must comply with the rules in force indicated below.

#### HAND PROTECTION

Protect hands with category III (ref. Directive 89/686/EEC and standard EN 374) work gloves, such as those in PVA, butyl, fluoroelastomer or equivalent. The following should be considered when choosing work glove material: degradation, breakage times and permeation. Work glove resistance to preparations should be checked before use, as it can be unpredictable. Gloves` limit depends on the duration of exposure.

#### EYE PROTECTION

Wear hood visor or protective visor together with airtight goggles (ref. standard EN 166).

#### SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (ref. Directive 89/686/CEE and standard EN 344). Wash body with soap and water after removing overalls.

#### RESPIRATORY PROTECTION

If the threshold value (if available) for one or more of the substances present in the preparation for daily exposure in the workplace or to a fraction established by the company's prevention and protection service is exceeded, wear a mask with an B or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use (ref. standard EN 141).

The use of respiratory tract protection equipment, such as masks like that indicated above, is necessary to reduce worker exposure in the absence of technical measures. The protection provided by masks is in any case limited.

If the substance in question is odourless or its olfactory threshold is higher than the relative exposure limit and in the event of an emergency, or when exposure levels are unknown or the concentration of oxygen in the workplace is less than 17% volume, wear self-contained, open-circuit compressed air breathing apparatus (ref. standard EN 137) or fresh air hose breathing apparatus for use with full face mask, half mask or mouthpiece (ref. standard EN 138).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism; consequently, personal protective equipment must be managed so as to guarantee maximum protection (e.g. by reducing the replacement times for used PPE).



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ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

### **SECTION 9.** Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance Colour Odour Odour threshold. pH. Melting point / freezing point. Initial boiling point. Boiling range. Flash point. Evaporation Rate Flammability of solids and gases Lower inflammability limit. Upper inflammability limit. Upper explosive limit. Upper explosive limit. Upper explosive limit. Vapour pressure. Vapour density Relative density. Solubility Partition coefficient: n-octanol/water Auto-ignition temperature. Decomposition temperature. Viscosity	fluid green odourless Not available. Not available.

#### 9.2. Other information.

Information not available.

### **SECTION 10. Stability and reactivity.**

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

#### 10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.



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None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

### **SECTION 11. Toxicological information.**

11.1. Information on toxicological effects.

ALKYL PHENOL POLYETHYLENE GLYCOL ETHER LD50 (Oral). > 2000 mg/kg (MSDS supplier)

#### CRISTOBALITE

LD50 (Oral). > 2000 mg/kg (OECD 401, rat, MSDS supplier) LC50 (Inhalation). > 2,6 mg/l (OECD 403, rat, MSDS supplier)

"For the purposes of classification of health hazards (part 3), the route of exposure, information on mechanisms and metabolism studies are useful for determining the relevance of effects in humans. If this information raises doubts as to their relevance in humans, in spite of the indisputable data legitimacy and quality, a lower classification may be justified. When there is scientific evidence that the mechanism or mode of action is not relevant to humans, the substance or mixture should not be classified (annex I, section 1.1.1.5, EC Regulation 1272/2008)".

Monitoring activities conducted at the company related to possible inhalation exposure, in accordance with industrial hygiene standards for paste and fluid products, showed levels of exposure to free crystalline silica (breathable part) below the limit of quantification of the method, therefore exposure is not expected during the use indicated in section 1.2 for this specific product.

However, the actual levels of free crystalline silica (breathable part) present in the workplace must be obtained through monitoring as required by regulations for the safety and health of workers.

#### **SECTION 12. Ecological information.**

12.1. Toxicity.

ALKYL PHENOL POLYETHYLENE GLYCOL ETHER EC50 (48h) - for Crustacea. 1,821 mg/l (QSAR: ECOSAR V1.00class(es) Found: US EPA, dossier ECHA) EC50 (72h) - for Algae / Aquatic Plants. 20 mg/l (Equivalento to EU Method C.3, 48h, REACH Guidance on QSAR, dossier ECHA)

#### 12.2. Persistence and degradability.

ALKYL PHENOL POLYETHYLENE GLYCOL ETHER NOT rapidly biodegradable.

CRISTOBALITE NOT rapidly biodegradable.

12.3. Bioaccumulative potential.

Information not available.



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### 12.4. Mobility in soil.

Information not available.

### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

#### 12.6. Other adverse effects.

Information not available.

### **SECTION 13. Disposal considerations.**

#### 13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Avoid littering. Do not contaminate soil, sewers and waterways.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## **SECTION 14. Transport information.**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### **SECTION 15. Regulatory information.**

15.1. Safety, health and environmental reg	egulations/legislation specific for the substance or mixture.
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Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product. Point.

Contained substance.

Point.

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3

ALKYL PHENOL POLYETHYLENE GLYCOL ETHER

Substances	in	Candidate	List	(Art.	59	REACH	).

#### ALKYL PHENOL POLYETHYLENE GLYCOL ETHER



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Substances subject to authorisarion (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 689/2008:

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Information not available.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

## **SECTION 16. Other information.**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H372	Causes damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R36/38	IRRITATING TO EYES AND SKIN.
R48/20	HARMFUL: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- CAS NUMBER: Chemical Abstract Service Number

- CE50: Effective concentration (required to induce a 50% effect)

- CE NUMBER: Identifier in ESIS (European archive of existing substances)

- CLP: EC Regulation 1272/2008

- DNEL: Derived No Effect Level



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EmS: Emergency Schedule

GHS: Globally Harmonized System of classification and labeling of chemicals

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- **OEL: Occupational Exposure Level**
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

#### GENERAL BIBLIOGRAPHY

- 1. Directive 1999/45/EC and following amendments
- 2. Directive 67/548/EEC and following amendments and adjustments
- 3. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 4. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 5. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- Regulation (EC) 453/2010 of the European Parliament
  Regulation (EC) 286/2011 (II Atp. CLP) of the European Parliament
- 8. The Merck Index. 10th Edition
- 9. Handling Chemical Safety
- 10. Niosh Registry of Toxic Effects of Chemical Substances
- 11. INRS Fiche Toxicologique (toxicological sheet)
- 12. Patty Industrial Hygiene and Toxicology
- 13. N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- 14. ECHA website

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.