

# Revision nr. 4 Dated 19/01/2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Mixture identification: Product Name: Code:

ELITE HD+ REGULAR BODY NORMALSET-CATALYST C203020, C203025, C203100

**1.2. Relevant identified uses of the substance or mixture and uses advised against** For professional use only. Addition silicone for dental impression.

#### 1.3. Details of the supplier of the safety data sheet

Name Zhermack S.p.a Via Bovazecchino 100 45021 Badia Polesine (RO) Italy tel. +39 0425-597611 fax +39 0425-597689 Competent person responsible for the safety data sheet: msds@zhermack.com

1.4. Emergency telephone number

+39 0425 597611 (office hours)

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

## 2.2. Label elements

The Regulation EC 1272/2008, on classification, labelling and packaging of substances and mixtures (CLP), shall not apply to a medical device in the finished state used in direct physical contact with the human body according to art. 1.5, letter d). Therefore the product is exempted from the CLP labeling requirements.

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments: None

#### 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.



No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1% Other Hazards: No other hazards

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

#### 3.1. Substances

Not Applicable

#### 3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb	ber	Classification
>= 10% - < 12,5%	Quartz	CAS: EC:	14808-60-7 238-878-4	STOT RE 1 H372 Causes damage to organs (lungs) through prolonged or repeated exposure if inhaled.
>= 3% - < 5%	Cristobalite	CAS: EC:	14464-46-1 238-455-4	STOT RE 1 H372 Causes damage to organs (lungs) through prolonged or repeated exposure if inhaled.
>= 0,5% - < 2,5%	Alcohols C12-14, ethoxylated	CAS:	68439-50-9	Aquatic Acute 1 H400 Very toxic to aquatic life. M=1. Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects. Eye Irrit. 2 H319 Causes serious eye irritation.
<0,09%	octamethylcyclotetrasil oxane; [D4]	Index number: CAS: EC:	014-018-00-1 556-67-2 209-136-7	Flam. Liq. 3 H226 Flammable liquid and vapour. Repr. 2 H361f Suspected of damaging fertility. Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects. M=10.

Substances in nanoform:

>= 5% - < 8% Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica -Nanoform

CAS: 68909-20-6, EC: 272-697-1

>= 0,5% - < 2,5% Pyrogenic Silica - Nanoform REACH No.: 01-2119379499-16-XXXX, CAS: 112945-52-5

#### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.



In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

- **4.2. Most important symptoms and effects, both acute and delayed** None
- **4.3. Indication of any immediate medical attention and special treatment needed** Treatment:

None

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Water. Carbon dioxide (CO2). Extinguishing media which must not be used for safety reasons: None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

### SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel: Wear personal protection equipment. Remove persons to safety. See protective measures under point 7 and 8. For emergency responders: Wear personal protection equipment.

### **6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Suitable material for taking up: absorbing material, organic, sand

- 6.3. Methods and material for containment and cleaning up
  - Wash with plenty of water.
- 6.4. Reference to other sections

See also section 8 and 13

### SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists. See also section 8 for recommended protective equipment. Advice on general occupational hygiene: Do not eat or drink while working.

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

Keep away from food, drink and feed.

Incompatible materials:

See section 10.5.

Instructions as regards storage premises:

Adequately ventilated premises.

### 7.3. Specific end use(s)



See section 1.2.

SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

ELITE HD+ REGULAR BODY NORMALSET-CATALYST Quartz - CAS: 14808-60-7

OEL Type	TWA	Duratio n	STEL	Duratio n	Notes	Country
МАК	0.15 mg/m3	8h			Respirable (aerosol)	AUSTRIA
TLV	0.1 mg/m3	8h	0.2 mg/m3	15min	Respirable (aerosol)	DENMARK
HTP	0.05 mg/m3	8h			Respirable	FINLAND
AK	0.15 mg/m3	8h			Respirable (aerosol)	HUNGARY
OELV	0.1 mg/m3	8h			Respirable	IRELAND
TGG	0.075 mg/m3	8h			Respirable	NETHERLAN DS
NGV/KGV	0.1 mg/m3	8h			Respirable	SWEDEN
VLA	0.1 mg/m3	8h			Respirable	SPAIN
MAK	0.15 mg/m3	8h			Respirable (aerosol)	SWITZERLA ND
VLEP	0.1 mg/m3	8h				BELGIUM
VLEP	0.1 mg/m3	8h			Respirable (aerosol)	FRANCE
TLV-ACGIH	0.025 mg/m3	8h				
TLV	0.3 mg/m3	8h	0.6 mg/m3	15min	Inhalable (aerosol)	DENMARK
NIOSH	0.05 mg/m3	8h				UNITED STATES
ACGIH	0.025 mg/m3	8h			(R), A2 - Pulm fibrosis, lung cancer	

#### Cristobalite - CAS: 14464-46-1

OEL Type	TWA	Duratio	STEL	Duratio	Notes	Country
		n		n		
EU	0.1 mg/m3	8h			Respirable	
TLV	0.1 mg/m3	8h			Respirable	ITALY
ACGIH	0.025 mg/m3	8h			(R), A2 - Pulm	



	fibrosis, lung cancer	
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Alcohols C12-14, ethoxylated - CAS: 68439-50-9

OEL Type	TWA	Duratio n	STEL	Duratio n	Notes	Country
No data available						

octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

OEL Type	TWA	Duratio	STEL	Duratio	Notes	Country
		n		n		
No data available						

DNEL Exposure Limit Values

Not available

PNEC Exposure Limit Values Not available

## 8.2. Exposure controls

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Eye protection:

Wear airtight protective goggles (EN 166).

Protection for skin:

Wear professional overalls and safety footwear (EN 14605).

Protection for hands:

Protect hands with work gloves (EN 374).

The following should be considered when choosing work glove material (EN 374): compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered (e.g. TLV-TWA).

Thermal Hazards:

None

Environmental exposure controls: None

Appropriate engineering controls:

None

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

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Viscous fluid		
Colour:	Light grey		
Odour:	Odourless		
Melting point/freezing point:	Not available		



Boiling point or initial	Not available	 
boiling point and boiling		
range:		
Flammability:	Not available	 
Lower and upper explosion	Not available	 
limit:		
Flash point:	Not available	 
Auto-ignition temperature:	Not available	 
Decomposition	Not available	 
temperature:		
pH:	Not available	 
Kinematic viscosity:	Not available	 
Solubility in water:	Insoluble	 
Solubility in oil:	Not available	 
Partition coefficient	Not available	 
n-octanol/water (log value):		
Vapour pressure:	Not available	 
Density and/or relative	Not available	 
density:		
Relative vapour density:	Not available	 
	Particle characteristics:	
Particle size:	Not available	 

#### 9.2. Other information

No other relevant information

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

- Stable under normal conditions **10.2. Chemical stability**
- Stable under normal conditions
- 10.3. Possibility of hazardous reactions None
- 10.4. Conditions to avoid
- Stable under normal conditions. **10.5. Incompatible materials** 
  - None in particular.
- **10.6. Hazardous decomposition products** None.

#### **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

"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

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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.

Toxicological information of the product:

ELITE HD+ REGULAR BODY NORMALSET-CATALYST

a) acute toxicity Not classified

- b) skin corrosion/irritation Not classified
- c) serious eye damage/irritation Not classified
- d) respiratory or skin sensitisation Not classified
- e) germ cell mutagenicity Not classified
- f) carcinogenicity Not classified
- g) reproductive toxicity Not classified
- h) STOT-single exposure Not classified
- i) STOT-repeated exposure Not classified
- j) aspiration hazard Not classified
- Toxicological information of the main substances found in the product:
  - Quartz CAS: 14808-60-7
  - i) STOT-repeated exposure:
    - Route: Inhalation Notes: Target organ: lungs Positive Source: (MSDS supplier).
  - Cristobalite CAS: 14464-46-1
  - i) STOT-repeated exposure:
    - Route: Inhalation Notes: Silicosis, pulmonary fibrosis; Target organ: lungs Source: (MSDS supplier).
  - Alcohols C12-14, ethoxylated CAS: 68439-50-9
  - a) acute toxicity:
    - Test: LD50 Route: Oral Species: Rat > 2000 mg/kg Source: (OECD 401, GLP, ECHA dossier).
  - b) skin corrosion/irritation:
    - Species: Rabbit Based on available data, the classification criteria are not met Source: (similar to OECD 404, GLP, ECHA dossier).
  - c) serious eye damage/irritation:
    - Eye Irritant Source: (MSDS supplier).
  - d) respiratory or skin sensitisation:
    - Test: Skin Sensitization Species: Guinea pig Based on available data, the classification

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criteria are not met - Source: (OECD 406, GLP, ECHA dossier).

e) germ cell mutagenicity:

Test: In vitro - Negative - Source: (OCDE 473, ECHA dossier).

i) STOT-repeated exposure:

Test: NOAEL - Route: Oral - Species: Rat 1080 mg/kg - Source: (OECD 408, ECHA dossier). octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

a) acute toxicity:

Test: LC50 - Species: Rat 36 mg/l - Source: (OECD 403, GLP, rat, 4 h, ECHA dossier). Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Source: (similar to OECD 402, rat,

ECHA dossier).

Test: LD50 - Route: Oral - Species: Rat 4800 mg/kg - Source: (similar to OECD 401, rat, ECHA dossier).

### 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

### **SECTION 12: Ecological information**

The product is not classified for chronic aquatic hazard: a test based on the bioavailability / release of D4 by the polymer silicone was performed with the OECD 29 method. It was found that the quantity of D4 released by 100mg of polymer is at least below the quantification limit of the method (i.e. 4.4 ppb), a value significantly lower than the limit that would result in the classification for chronic aquatic toxicity, i.e. NOEC of 0.0044 mg / L for fish and 0.0079 mg / L for aquatic invertebrates. Therefore, the product is not classified for this hazard class.

#### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

ELITE HD+ REGULAR BODY NORMALSET-CATALYST

The product is classified: -

Alcohols C12-14, ethoxylated - CAS: 68439-50-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1.2 mg/l - Duration h: 96h (EU Method C.1, GLP, Danio rerio, ECHA dossier).

octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

a) Aquatic acute toxicity:

Endpoint: IC50 - Species: Algae > 0.0022 mg/l - Duration h: 72h (EPA OTS 797.1050, Selenastrum capricornutum, freshwater, ECHA dossier).

Endpoint: LC50 - Species: Fish > 0.0022 mg/l (Oncorhynchus mykiss, GLP, ECHA dossier). Endpoint: NOEC - Species: Fish > 0.0044 mg/l (publication, Oncorhynchus mykiss, GLP, ECHA dossier).

Long-term toxicity to aquatic invertebrates:

Endpoint: NOEC - Species: Daphnia =  $7.9 \ \mu g/L$  - Duration h: 21d EPA OTS 797.1330, Daphnia magna, ECHA dossier

### 12.2. Persistence and degradability

Quartz - CAS: 14808-60-7 Biodegradability: Non-readily biodegradable Cristobalite - CAS: 14464-46-1 Biodegradability: Non-readily biodegradable Alcohols C12-14, ethoxylated - CAS: 68439-50-9 Biodegradability: Readily biodegradable

### 12.3. Bioaccumulative potential

Quartz - CAS: 14808-60-7 Not bioaccumulative Cristobalite - CAS: 14464-46-1 Not bioaccumulative

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octamethylcyclotetrasiloxane; [D4] - CAS: 556-67-2

Test: Kow - Partition coefficient 6.49 - Notes: (Log Pow, ECHA dossier).

12.4. Mobility in soil

Not available

- 12.5. Results of PBT and vPvB assessment vPvB Substances: None - PBT Substances: None
- **12.6. Endocrine disrupting properties** No endocrine disruptor substances present in concentration >= 0.1%
- 12.7. Other adverse effects

None

## SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

#### **SECTION 14: Transport information**

#### 14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

- 14.2. UN proper shipping name Not available
- 14.3. Transport hazard class(es)
- Not available

## 14.4. Packing group

- Not available
- 14.5. Environmental hazards

   ADR-Environmental Pollutant:
   No

   IMDG-Marine pollutant:
   No
- 14.6. Special precautions for user Not available
- 14.7. Maritime transport in bulk according to IMO instruments Not Applicable

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EU) n. 2020/878 Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP) Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2019/521 (ATP 12 CLP) Regulation (EU) n. 2020/217 (ATP 14 CLP)

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Regulation (EU) n. 2020/1182 (ATP 15 CLP) Regulation (EU) n. 2021/643 (ATP 16 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: Restriction 3 Restriction 40 Restrictions related to the substances contained: Restriction 70 Restriction 75

Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1 None

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefährdende Stoffe)

Lagerklasse according to TRGS 510: LGK 10: Combustible liquids

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012: None.

California Proposition 65

Substance(s) listed under California Proposition 65: Quartz - Listed as carcinogen Cristobalite - Listed as carcinogen.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture. Substances for which a Chemical Safety Assessment has been carried out: None

### **SECTION 16: Other information**

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Repr. 2	3.7/2	Reproductive toxicity, Category 2
STOT RE 1	3.9/1	Specific target organ toxicity - repeated exposure, Category 1
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aquatic Chronic	According to Article 12 of the CLP Regulation, "Where,
	as a result of the evaluation carried out pursuant to

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Article 9, the following properties or effects are identified, manufacturers, importers and downstream users shall take them into account for the purposes of classification: [] (b) conclusive scientific experimental data show that the substance or mixture is not biologically available and those data have been ascertained to be adequate and
reliable." Following a release study of D4 through the OECD 29
test on polymeric products representative for quantity of D4, the limit that would result in the classification for
chronic aquatic toxicity (NOEC of 0.0044 mg / L for fish
and 0.0079 mg / L for invertebrates aquatic) is not reached.

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECHA – European Chemical Agency GESTIS - Information system on hazardous substances of the German Social Accident Insurance IARC – International Agency for Research on Cancer IPCS INCHEM – International Programme on Chemical Safety ISS – Istituto Superiore di Sanità PubChem - open chemistry database at the National Institutes of Health (NIH)

A safety data sheet is not required for this product under article 31 of Regulation 1907/2006/EC. This safety data sheet has been created on a voluntary basis.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

European Agreement concerning the International Carriage of Dangerous Goods by Road.
Acute Toxicity Estimate
Acute toxicity Estimate (Mixtures)
Chemical Abstracts Service (division of the American Chemical Society).
Classification, Labeling, Packaging.
Derived No Effect Level.
European Inventory of Existing Commercial Chemical Substances.
Ordinance on Hazardous Substances, Germany.
Globally Harmonized System of Classification and Labeling of Chemicals.
International Air Transport Association.
Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
International Civil Aviation Organization.
Technical Instructions by the "International Civil Aviation Organization" (ICAO).
International Maritime Code for Dangerous Goods.
International Nomenclature of Cosmetic Ingredients.
Explosion coefficient.

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- Lethal concentration, for 50 percent of test population. LC50: LD50: Lethal dose, for 50 percent of test population. Predicted No Effect Concentration. PNEC: Regulation Concerning the International Transport of Dangerous Goods RID: by Rail. Short Term Exposure limit. STEL: Specific Target Organ Toxicity. STOT: Threshold Limiting Value. TLV: Time-weighted average TWA:
- WGK: German Water Hazard Class.