

Revision nr. 2 Dated 09/05/2022

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

1.1. Product identifier

Mixture identification: Product Name: Code:

OCCLUFAST+ COLOR - CATALYST C200780, C200781, C200782

1.2. Relevant identified uses of the substance or mixture and uses advised against Intended use

For professional use only. Addition silicone for bite registration.

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 etent person responsible for t

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.

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 $\geq 0.1\%$ Other Hazards:

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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. Nu	ımber	Classification	
>= 10% - < 12,5%	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.	

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.

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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.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

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

OCCLUFAST+ COLOR - CATALYST 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	

DNEL Exposure Limit Values Not available PNEC Exposure Limit Values Not available **8.2. Exposure controls** Precautionary measures:

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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

Properties	Value	Method:	Notes
Physical state:	Fluid		
Colour:	White		
Odour:	Odourless		
Melting point/freezing point:	Not Relevant		
Boiling point or initial boiling point and boiling range:	Not Relevant		
Flammability:	Not available		
Lower and upper explosion limit:	Not available		
Flash point:	>135 ° C		
Auto-ignition temperature:	Not available		
Decomposition	Not available		
temperature:			
pH:	Not Relevant		
Kinematic viscosity:	Not available		
Solubility in water:	Insoluble		
Solubility in oil:	Not available		
Partition coefficient n-octanol/water (log value):	Not available		
Vapour pressure:	Not available		
Density and/or relative density:	1.47		
Relative vapour density:	Not available		

9.1. Information on basic physical and chemical properties

Particle characteristics:



Particle size: Not available

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 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:

- OCCLUFAST+ COLOR 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

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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:

Cristobalite - CAS: 14464-46-1

i) STOT-repeated exposure:

Route: Inhalation - Notes: Silicosis, pulmonary fibrosis; Target organ: lungs - Source: (MSDS supplier).

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France).

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003).

There is a body of evidence supporting the fact that increased cancer risk would not be limited to people already suffering from silicosis. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

11.2. Information on other hazards

Endocrine disrupting properties: No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. OCCLUFAST+ COLOR - CATALYST

Not classified for environmental hazards

Based on available data, the classification criteria are not met

12.2. Persistence and degradability

Cristobalite - CAS: 14464-46-1 Biodegradability: Non-readily biodegradable

12.3. Bioaccumulative potential

Cristobalite - CAS: 14464-46-1

Not bioaccumulative

12.4. Mobility in soil

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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-Enviromental 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) Regulation (EU) n. 2020/1182 (ATP 15 CLP) Regulation (EU) n. 2021/643 (ATP 16 CLP)

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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 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: 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
STOT RE 1	3.9/1	Specific target organ toxicity - repeated exposure, Category 1

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.

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This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical
	Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport
	Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

Changes from the previous revision. Changes have been made to the following sections: 01/02/03/04/05/06/07/08/09/10/11/12/13/14/15/16.