

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/12/2021

Reviewed on 08/12/2021

* 1 Identification

· **Product Identifier**

· **Trade Name:** Zirconite ZC-Boosta

· **Product Number:** ZIR501030/ ZIR501050/ ZIR501100

· **Relevant identified uses of the substance or mixture and uses advised against:**

· **Product Description:** Nano-ceramic coating.

· **Details of the Supplier of the Safety Data Sheet:**

· **Manufacturer/Supplier:**

Concept Chemicals & Coatings Ltd.
Felt Court, Windmill Lane Ind. Estate
Denton, Manchester M34 3RB England
Tel 00 44 (0)161 335 0213
Fax 00 44 (0)161 335 0214
www.conceptchemicals.com
kenny@conceptchemicals.com

· **Emergency telephone number:**

PERS Emergency Response
Domestic and Canada: 1-800-633-8253
International: +001-801-629-0667

2 Hazard(s) Identification

· **Classification of the substance or mixture:**



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Flam. Liq. 4 H227 Combustible liquid.

Aquatic Acute 3 H402 Harmful to aquatic life.

· **Label elements:**

· **Hazard pictograms:**



· **Signal word:** Warning

· **Hazard statements:**

H227 Combustible liquid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H402 Harmful to aquatic life.

· **Precautionary statements:**

P210 Keep away from flames and hot surfaces. – No smoking.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of water.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use CO ₂ , powder or water spray to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Unknown acute toxicity:**

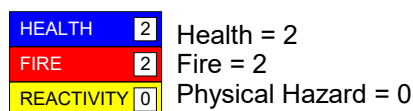
This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

· **Chemical characterization: Substance**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 541-02-6	Decamethylcyclopentasiloxane Flam. Liq. 4, H227; Eye Irrit. 2B, H320	60-90%
CAS: 71750-79-3	Siloxanes and Silicones, 3-((2-aminoethyl)amino)propyl Me, di-Me ⚠ Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Acute 2, H401	2-12%
CAS: 34590-94-8 RTECS: JM 1575000	Dipropylene glycol monomethyl ether Flam. Liq. 4, H227	2-12%
CAS: 75718-16-0	Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, hydroxy-terminated ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤2.5%
CAS: 540-97-6	Cyclohexasiloxane	≤2.5%

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:** If symptoms persist, call a physician.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in the side position for transportation.

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· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

If easy to do so, remove contact lenses if worn.

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Special hazards arising from the substance or mixture:**

Combustible liquid. Vapors can travel to a source of ignition and flash back.

Explosive mixtures may occur at temperatures at or above flashpoint.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:** Not required.

· **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· **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.

· **PAC-1:**

541-02-6	Decamethylcyclopentasiloxane	150 mg/m ³
34590-94-8	Dipropylene glycol monomethyl ether	150 mg/m ³
71750-79-3	Siloxanes and Silicones, 3-((2-aminoethyl)amino)propyl Me, di-Me	150 mg/m ³
75718-16-0	Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, hydroxy-terminated	150 mg/m ³

· **PAC-2:**

541-02-6	Decamethylcyclopentasiloxane	1,700 mg/m ³
34590-94-8	Dipropylene glycol monomethyl ether	1,700 mg/m ³
71750-79-3	Siloxanes and Silicones, 3-((2-aminoethyl)amino)propyl Me, di-Me	1,700 mg/m ³

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75718-16-0	Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, hydroxy-terminated	1,700 mg/m ³
· PAC-3:		
541-02-6	Decamethylcyclopentasiloxane	9,900 mg/m ³
34590-94-8	Dipropylene glycol monomethyl ether	9,900 mg/m ³
71750-79-3	Siloxanes and Silicones, 3-((2-aminoethyl)amino)propyl Me, di-Me	9,900 mg/m ³
75718-16-0	Poly[3-((2-aminoethyl)amino)propyl]methyl(dimethyl)siloxane, hydroxy-terminated	9,900 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

34590-94-8 Dipropylene glycol monomethyl ether

PEL	Long-term value: 600 mg/m ³ , 100 ppm Skin
REL	Short-term value: 900 mg/m ³ , 150 ppm Long-term value: 600 mg/m ³ , 100 ppm Skin
TLV	Long-term value: NIC-50 ppm (Skin)

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.

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Trade Name: Zirconite ZC-Boosta**Protection of hands:**

Protective gloves

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection:

Tightly sealed goggles

Limitation and supervision of exposure into the environment:

Keep away from drains, surface and ground waters.
Avoid release into the environment.

9 Physical and Chemical Properties

Information on basic physical and chemical properties**General Information****Appearance:****Form:** Liquid**Color:** Clear**Odor:** Ammonia-like**Odor threshold:** Not determined.**pH-value:** Not determined.**Change in condition****Melting point/Melting range:** Not determined.**Flash point:** 77 °C (170.6 °F)**Flammability (solid, gaseous):** Not applicable.**Ignition temperature:** Not applicable**Decomposition temperature:** Not determined.**Auto igniting:** Product is not self-igniting.**Danger of explosion:** Not determined.**Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**Vapor pressure @ 20 °C (68 °F):** ≤1.3 hPa (≤1 mm Hg)**Density @ 20 °C (68 °F):** 0.96 g/cm³ (8.0112 lbs/gal)**Relative density:** Not determined.**Vapor density:** Not determined.

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- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 2.5 %
 - VOC content:** 2.50 %
 - 24.0 g/l / 0.20 lb/gal
- **Solids content:** 0.0 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:		
541-02-6 Decamethylcyclopentasiloxane		
Oral	LD50	>5,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	8.67 mg/l (Rat)
71750-79-3 Siloxanes and Silicones, 3-((2-aminoethyl)amino)propyl Me, di-Me		
Oral	LD50	5,000 mg/kg (Rat)
Dermal	LD50	2,000 mg/kg (Rabbit)
Inhalative	LC50/4 h	105 mg/l (Rat)
34590-94-8 Dipropylene glycol monomethyl ether		
Oral	LD50	5,135 mg/kg (Rat)
Dermal	LD50	>19,000 mg/kg (rab)
Inhalative	LC50/96 hours	>10,000 mg/l (Pimephales)

- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Irritating effect.
- **Additional toxicological information:**
 The product shows the following dangers according to internally approved calculation methods for preparations:

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Irritant

· Carcinogenic categories:**· IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

12 Ecological Information

· Toxicity:**· Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

34590-94-8 Dipropylene glycol monomethyl ether

EC50 1.919 mg/l (Daphnia)

· Persistence and degradability: No further relevant information available.**· Behavior in environmental systems:****· Bioaccumulative potential:** No further relevant information available.**· Mobility in soil:** No further relevant information available.**· Ecotoxicological effects:****· Remark:** Harmful to fish**· Additional ecological information:****· General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Harmful to aquatic organisms

· 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:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.

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

14 Transport Information

· UN-Number:**· DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· UN proper shipping name:**· DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· Transport hazard class(es):**· DOT, ADR/ADN, ADN, IMDG, IATA****· Class:**

Non-Regulated Material

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- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.

- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

- **Hazardous Air Pollutants**

None of the ingredients are listed.

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **New Jersey Right-to-Know List:**

34590-94-8 Dipropylene glycol monomethyl ether

- **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

- **Pennsylvania Right-to-Know List:**

34590-94-8 Dipropylene glycol monomethyl ether

- **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

- **Carcinogenic categories:**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

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GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms:**Signal word:** Warning**Hazard statements:**

H227 Combustible liquid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H402 Harmful to aquatic life.

Precautionary statements:

P210 Keep away from flames and hot surfaces. – No smoking.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 If on skin: Wash with plenty of water.

P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

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

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

Contact:**Date of last revision/ revision number:** 08/12/2021 / 2**Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

*** Data compared to the previous version altered.**

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