

Zenoss Chips

Hydroxyapatite granules

Material safety data sheet (MSDS)
Version 1.0 / EN

10/01/2021



SECTION 1: THE NAME AND STRUCTURE OF SUBSTANCE OR A MATERIAL

1.1. Product identifier

Product Name	DSI Zenoss Chips
CAS number	12167-74-7
Physical State	Material based on synthetic calcium phosphate surgical for restoration of defects hard tissues

1.2. Structure

Synonyms	HAp; Calcium hydroxyphosphate; Hydroxylapatite
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SECTION 2: DATA ON THE ORGANIZATION-MANUFACTURER OR THE SUPPLIER

2.1. Details of the supplier of the safety data sheet:

Company Name	DSI Ltd.
Company Address	59 haAvoda str., Ashdod 7706300 Israel
Contact Name	Shlomi Krasner
Phone / Fax	+972.893.172.35
E-mail	info@dsisrael.com

2.2. Emergency telephone number:

Phone / Fax	+972.893.172.35
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SECTION 3: HAZARDS IDENTIFICATION

3.1. Classification of substance or mixture

Substance/mixture is not classified as hazardous.

3.2. GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not classified as hazardous under the GHS.

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3.3. Label elements and precautionary statements

Pictogram:	
Signal word:	Warning
Hazard statement(s):	Not available
Precautionary statement(s):	No applicable precautionary statements.

3.4. Hazards not otherwise classified (HNOC) or not covered by GHS

No unclassified hazards known.

3.5. NFPA Rating

Health hazard:	0
Fire hazard:	0
Reactivity hazard:	0

3.6. HMIS Rating

Health hazard:	0
Chronic health hazard:	0
Reactivity hazard:	0
Flammability:	0
Physical hazard:	0

SECTION 4: COMPOSITION/INFORMATION ON INGREDIENTS**4.1. Substances**

Substance	CAS#	EC#	Concentration
Pentacalcium hydroxide tris (orthophosphate) M.F: $\text{H}\text{Ca}_5\text{O}_{13}\text{P}_3$ M.W: 502.31 g/mol	12167-74-7	235-330-6	<=100%

4.2. Hazardous components & classification

Not available

SECTION 5: MEASURES OF FIRST AID

5.1. Description of first aid measures

General advice.

Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of inhalation

If inhaled, move person to fresh air and monitor breathing. If not breathing, give artificial ventilation. Consult a physician if symptoms are severe or persistent.

In case of skin contact

Immediately wash with excess soap and water. If spilled on clothing, remove all affected clothing. Consult a physician if symptoms are severe or persistent.

In case of eye contact

Flush eyes with water or eye wash solution as a precaution for 15 minutes. Consult a physician if symptoms are severe or persistent.

In case of ingestion

Only induce vomiting if recommended by medical personnel. If subject is unconscious, do not give anything by mouth. If conscious, rinse mouth with water. Consult a physician if symptoms are severe or persistent.

5.2. Most important symptoms and effects, both acute and delayed

All known important symptoms are described in Section 3 and/or Section 12. No other important symptoms to report.

5.3. Indication of any immediate medical attention and special treatment needed

No special treatment indicated. Provide treatment in accordance with exhibited systems.

SECTION 6: FIREFIGHTING MEASURES

6.1. Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, and carbon dioxide are suitable.

6.2. Unsuitable extinguishing media

Not available.

6.3. Special hazards arising from the substance

Oxides of phosphorus, Calcium oxide.

6.4. Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 7: ACCIDENTAL RELEASE MEASURES

7.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

Avoid breathing dust.

For personal protection see section 9.

7.2. Environmental precautions

Prevent product from entering public sewers and waterways.

7.3. Methods and material for containment and cleaning up

Use inert absorbent material to absorb any spilled or leaked product. Keep in suitable, closed containers for disposal.

For proper disposal see section 14.

SECTION 8: HANDLING AND STORAGE

8.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 3.

8.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Store in cool, well ventilated area. Keep container tightly closed.
Light Sensitive. Product is hygroscopic.
Take precautions to avoid contact with atmospheric moisture.
Store under Argon. Store at – 20 °C.

Incompatible materials:

Not available

SECTION 9: EXPOSURE CONTROLS/PERSONAL PROTECTION

9.1. Control parameters

Contains no substances with occupational exposure limit values.

9.2. Engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9.3. Personal protective equipment

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure:

Do not let product enter drains.

General hygiene considerations:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

10.1. Information on basic physical and chemical properties

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|---------------------|---------------|
| a) Appearance: | Powder |
| b) Physical states: | Solid |
| c) Odor: | Not available |
| d) Odor threshold: | Not available |
| e) Melting point: | 1.100 °C |

f) Boiling point range:	Not available
g) pH:	Not available
h) Density:	3.140 g/cm ³
i) Flash point:	Not available
j) Evaporation rate:	Not available
k) Flammability:	Not available
l) Upper/lower flammability or explosive limits:	Not available
m) Vapor pressure:	Not available
n) Vapor density:	Not available
o) Relative density:	3.140 g/cm ³
p) Water solubility:	Insoluble
q) Partition coefficient: n-octanol/water:	Not available
r) Autoignition temperature:	Not available
s) Decomposition temperature:	Not available
t) Kinematic viscosity:	Not available
u) Explosive properties:	Not available
v) Oxidizing properties:	Not available
w) Solubility in other solvents:	Not available
x) Surface tension:	Not available

SECTION 11: STABILITY AND REACTIVITY

11.1. Reactivity

No special reactivity is known. Non-reactive under normal use.

11.2. Chemical stability

Product is stable when stored as recommended.

11.3. Stability note(s)

No special or unusual instability known.

11.4. Polymerization

No known polymerization possible.

11.5. Possibility of hazardous reactions

No known hazardous reactions are possible.



11.6. Incompatible materials

Strong oxidizing agents

11.7. Hazardous decomposition products

Oxides of phosphorus, Calcium oxide.

SECTION 12: TOXICOLOGICAL INFORMATION

12.1. Acute toxicity.

LD50 Oral:	No toxicity data available.
LD50 Dermal:	No toxicity data available.
LC50 Inhalation:	No toxicity data available.

12.2. Skin corrosion/irritation

No skin/corrosion irritation data available.

12.3. Serious eye damage/eye irritation

No eye damage/irritation data available.

12.4. Respiratory or skin sensitization

No sensitization data available.

12.5. Germ cell mutagenicity

No mutagenicity data available.

12.6. Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12.7. Reproductive toxicity

No reproductive toxicity data available.



12.8. Specific target organ toxicity – single exposure

No specific organ toxicity data available.

12.9. Specific target organ toxicity – repeated exposure

No specific organ toxicity data available.

12.10. Aspiration hazard

No aspiration hazard data available.

12.11. Additional Information

RTECS: No RTECS data available.

SECTION 13: ECOLOGICAL INFORMATION

13.1. Toxicity

No ecological toxicity data available.

13.2. Aquatic toxicity

No aquatic toxicity data available.

13.3. Persistence and degradability

No persistence/degradability data available.

13.4. Bioaccumulative potential

No bioaccumulation data available.

13.5. Mobility in soil

No soil mobility data available.

13.3. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment is not required/was not conducted.

13.7. Other adverse effect

No other adverse effect data available.



SECTION 14: DISPOSAL CONSIDERATIONS

14.1. Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

14.2. Packaging

Dispose of as unused product.

14.3. Recommendation

Disposal must be made according to official regulations.

SECTION 15: TRANSPORTATION INFORMATION

15.1. DOT (US)

Not dangerous goods.

15.2. IMDG

Not dangerous goods.

15.3. IATA

Not dangerous goods.

SECTION 16: REGULATORY INFORMATION

16.1. SARA

SARA 302 Components

SARA 302: This product and components are not subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards.

Acute Health Hazard.



16.2. Clean water act (CWA)

No chemicals are present in this product that are subject to regulation under the Clean Water Act.

16.3. Right to know components

Massachusetts:	No chemicals are present which require disclosure under the Massachusetts Right to Know Act.
Pennsylvania:	Pentacalcium hydroxide tris (orthophosphate) CAS-No-2167-74-7.
New Jersey:	Pentacalcium hydroxide tris (orthophosphate) CAS-No-2167-74-7.
California proposition 65 components:	This product contains no chemicals which are known to the State of California to cause cancer, or birth defects or other reproductive harm.

Since the working conditions of the final user are unknown, the information presented in this safety data sheet is based on the current level of our knowledge, based on national and general standards.

The product should not be used for any other purpose than those indicated under heading without first receiving written instructions for use. The user must take all necessary measures to comply with the requirements and rules of the law.

The information in this safety data sheet should be considered as a description of the safety requirements that apply to our product and does not guarantee its properties.