



# Material Safety Data Sheet

BoneMedik-S

META BIOMED CO., LTD.

## 1. Identification of the substance/preparation and of the company/undertaking

- Product name	: BoneMedik-S
- Product Number	: 880638789600
- Relevant identified uses of the substance or mixture and uses advised against	: Bone grafting materials.
- Supplier	: META BIOMED CO., LTD. Head Office) 270, Osongsaengmyeong 1-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do, Korea Tel : (82-43) 218-1981 Fax : (82-43) 217-1983

## 2. Hazards identification

- Classification of the substance or mixture	: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.
- Label elements	: The product does not need to be labelled in accordance with EC directives or respective national laws.
- Other hazards	: none

## 3. Composition/information on ingredients

Information on hazardous ingredients			
Substances(Synonyms)	CAS No.	w/w %	EC Number
Hydroxyapatite(HAp)	12167-74-7	95%<	235-330-6
Calcium phosphate			
Calcium hydroxyphosphate			

No components need to be disclosed according to the applicable regulations.

## 4. First aids measures

- Eye contact	: Flush eyes with water as a precaution
- Skin contact	: Wash off with soap and plenty of water. Consult a physician.



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- **Inhalation** : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **Ingestion** : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- **General advice** : Consult a physician. Show this safety data sheet to the doctor in attendance.

## 5. Fire fighting measures

### Extinguishing media

- **Suitable** : Water, Foam, Carbon Dioxide, Dry Chemical
- **Not suitable** : N/A
- **Special fire fighting procedures** : Self contained breathing apparatus to prevent smoke inhalation.
- **Unusable fire/explosion hazards** : None
- **Hazardous thermal (de)composition products** : Oxides of phosphorus, Calcium oxide
- **Protection of fire fighters** : Wear self contained breathing apparatus for fire fighting if necessary.

## 6. Accidental release measures

- **Personal precautions** : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.
- **Environmental precautions** : Do not let product enter drains.
- **Methods for cleaning up** : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

- **Handling** : Provide appropriate exhaust ventilation at places where dust is formed.
- **Storage** : Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure controls/personal protection

- **Control parameters** : Components with workplace control parameters
- **Appropriate engineering controls** : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- **Respiratory protection** : Respiratory protection is not required. Where protection from



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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).

- **Skin and body** : Wear suitable protective clothing.
- **Hands** : Wear suitable gloves.
- **Eyes** : With sufficient extraction or closed system; safety goggles.

## 9. Physical and chemical properties

- <b>Physical state</b>	: solid, powder	- <b>Evaporation rate</b>	: no data available
- <b>Color</b>	: gray, off-white	- <b>Flammability(solid, gas)</b>	: no data available
- <b>Odor</b>	: no data available	- <b>Solubility in water</b>	: Insoluble
- <b>Odor Threshold</b>	: no data available	- <b>pH</b>	: N/A
- <b>Boiling point</b>	: no data available	- <b>Flash point</b>	: no data available
- <b>Melting point</b>	: 1,100°C ~ lit.	- <b>Autoignition temperature</b>	: no data available
- <b>Vapor pressure</b>	: no data available	- <b>Upper/Lower explosion limit</b>	: no data available
- <b>Vapor density</b>	: no data available	- <b>Viscosity</b>	: no data available
- <b>Specific gravity(H<sub>2</sub>O=1)</b>	: 3.14	- <b>Partition coefficient: n-octanol/water</b>	: no data available
- <b>Decomposition temp.</b>	: no data available		

## 10. Stability and reactivity

- **Stability** : Stable under recommended storage conditions.
- **Condition to avoid** : no data available
- **Materials to avoid** : Strong oxidizing agents
- **Hazardous reactions** : no data available
- **Hazardous decomposition products** : Other decomposition products - no data available

## 11. Toxicological information

- **Acute toxicity** : LD50 Oral - rat - male and female - > 5.000 mg/kg  
LD50 Dermal - rabbit - male and female - > 2.000 mg/kg
- **Skin corrosion/irritation** : Skin - rabbit  
Result: No skin irritation - 4 h  
(OECD Test Guideline 404)
- **Serious eye damage/eye** : Eyes - rabbit



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<b>irritation</b>	Result: No eye irritation
- <b>Respiratory or skin sensitisation</b>	: no data available
- <b>Carcinogenicity</b>	: 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
- <b>Germ cell mutagenicity</b>	: mouse lymphocyte Result: negative
- <b>Reproductive toxicity</b>	: no data available
- <b>Specific target organ toxicity - single exposure</b>	: no data available
- <b>Specific target organ toxicity - repeated exposure</b>	: no data available
- <b>Aspiration hazard</b>	: no data available

## 12. Ecological information

- <b>Toxicity</b>	: no data available
- <b>Persistence and degradability</b>	: no data available
- <b>Bioaccumulative potential</b>	: no data available
- <b>Mobility in soil</b>	: no data available
- <b>Other adverse effects</b>	: no data available

## 13. Disposal considerations

- <b>Product</b>	: Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
- <b>Contaminated packaging</b>	: Dispose of as unused product.



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## 14. Transport information

- UN number : N/A	- Packaging group : N/A
- UN proper shipping name : Not dangerous goods	- Environmental hazards : No
- Transport hazard class : N/A	- Special precautions for user : no data available
- Sea transport IMDG/GGV sea class : N/A	

## 15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.	
- Safety, health and environmental regulations/legislation specific for the substance or mixture	: no data available
- Chemical Safety Assessment	: For this product a chemical safety assessment was not carried out

## 16. Other information

The information contained in the Safety data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.	
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