

SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2022
Date Updated: December 31, 2022

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----

Product Name Chitosan
Product Code(s) CB0660
Recommended Use For Laboratory Research Use Only
 Not for Human or Animal Drug Use

Supplier Bio Basic Asia Pacific Pte Ltd.
Address 2 International Business Park Road
 Strategy #01-04, Singapore 609930

Telephone (+65) 6954 2519
 (+65) 6491 5938

Email sg@biobasic-asia.com

SECTION 2. ----- HAZARDS IDENTIFICATION -----

Classification of the substance or mixture

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Short-term (acute) aquatic hazard (Category 2), H401

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram	None
Signal word	None
Hazard statement(s)	Toxic to aquatic life
H401	
Precautionary statement(s)	Avoid release to the environment.
P273	Dispose of contents/container to an approved waste disposal plant.
P501	

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	CAS-No.	Weight %
Chitosan	618-480-0	9012-76-4	≤100

SECTION 4. ----- FIRST-AID MEASURES-----

Description of first-aid measures

General advice

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

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

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If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x)

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Explosion data - sensitivity to mechanical impact

No data available

Explosion data - sensitivity to static discharge

No data available

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. ----- HANDLING AND STORAGE-----

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): 13: Non Combustible Solids

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

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Minimum layer thickness: 0.11 mm
 Break through time: 480 min
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

Information on basic physical and chemical properties

Appearance	Form: Powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Viscosity	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available

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SECTION 10. -----STABILITY AND REACTIVITY -----

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x)
Other decomposition products - No data available.

In the event of fire: see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute toxicity

LD50 Oral - Rat - > 10,000 mg/kg

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

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.

Reproductive toxicity

No data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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SECTION 12. ----- ECOLOGICAL INFORMATION -----

Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 1.73 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia pulex (Water flea) - 13.69 mg/l - 48 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15. ----- REGULATORY INFORMATION -----

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

SECTION 16. ----- OTHER INFORMATION -----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality

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specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

Issuing Date: 31-Dec-2022

End of SDS