

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	NHS-Activated Beads 4FF
Product Code(s)	SA039005/SA039100
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 -----

GHS Classification

Flammable liquids (Category 3), H226
 Skin sensitization (Category 1), H317
 Reproductive toxicity (Category 1B), H360
 Specific target organ toxicity - repeated exposure (Category 2), Respiratory Tract, H373

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H226	Flammable liquid and vapor.
H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.
H373	May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure.

Precautionary statement(s)

Prevention

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting, and all material-handling equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use water spray, dry chemical powder or carbon dioxide to extinguish.

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Storage

P403 + P235

Store in a well-ventilated place. Keep cool.

Disposal

P501

Dispose of contents/container to all local, regional, national and international regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

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

Chemical Name	EC-No.	CAS-No.	Weight %
Ethanol	200-578-6	64-17-5	10-20

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

Description of first-aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

In case of skin contact

Remove contaminated clothing and shoes. Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water for 15 minutes. Remove any contact lenses. Check for and remove any contact lenses. Continue to wash for at least 10 minutes. Get medical attention.

If swallowed

If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

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. Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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Further information

No data available

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

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion proof equipment. For small spill. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. For large spill. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13).

Reference to other sections

For disposal see section 13.

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

Precautions for safe handling

Avoid Inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Always wear recommended Personal Protective Equipment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store at 2-8°C, do not freeze. Storage class (TRGS 510): 3: Flammable liquids

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

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

Exposure limits

Contains no substances with occupational exposure limit values.

Engineering measures

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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). Safety glasses.

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

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after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Use flame retardant antistatic protective clothing.

Respiratory protection

Required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

Information on basic physical and chemical properties

Appearance	Form: Liquid Colour: White
Odour	Alcohol-like (Slight)
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	Closed cup: 38 to 43°C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not classified as explosive
Oxidizing properties	No data available

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

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

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Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

Oxidizing materials

Hazardous decomposition products

None under normal use conditions..

In the event of fire: see section 5

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

Acute toxicity

LD50 Oral - Rat - male and female - 10,470 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124.7 mg/l - vapor

(OECD Test Guideline 403)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation.

(OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Methanol

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 478

Species: Mouse - male

Result: Positive results were obtained in some in vivo tests

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

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No data available

Aspiration hazard

No data available

Additional Information

No data available

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

Toxicity

Toxicity to fish	Flow-through test LC50 - <i>Pimephales promelas</i> (fathead minnow) - 15,300 mg/l - 96 h (US-EPA)
Toxicity to daphnia and other aquatic invertebrates	Static test LC50 - <i>Ceriodaphnia dubia</i> (water flea) - 5,012 mg/l - 48 h Remarks: (ECHA)
Toxicity to algae	Static test ErC50 - <i>Chlorella vulgaris</i> (Fresh water algae) - 275 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to bacteria	Static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)

Persistence and degradability

Aquatic half-life	No data available
Photolysis	100%-Readily-20 days
Biodegradability	Readily

Bioaccumulative potential

LogPow	-0.35
BCF	0.66
Potential	Low

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

No data available

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

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. No mixing of other waste.

Contaminated packaging

Dispose of as unused product.

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

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

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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 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