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Material Safety Data Sheet: iNANOvative™ |BIO

1. Product and Company Information

PRODUCT NAME: iNANOvative™| BIO

CHEMICAL NAME: Silica-Coated Superparamagnetic Iron Oxide nanoparticle clusters in water; gamma- Fe_2O_3

PRODUCT NUMBER: 2015-2

CAS number: N/A

COMPANY: Nanos Scientificae d.o.o.

ADDRESS: Teslova ulica 30, 1000 Ljubljana, Slovenia, European Union

PHONE: 00386 1 477 36 29, FAX: 00386 1 252 93 85

N/A = data not available

2. Composition/Information on Ingredients

PRODUCT DESCRIPTION

Magnetic core: Composed of superparamagnetic maghemite (gamma-Fe_2O_3) nanoparticles

Terminal groups: Silanol –OH , and various functional groups (amine, carboxy, alkine)

Suspension medium: Distilled water

3. Hazards Identification

We recommend handle all chemicals with caution.

HMIS rating (scale 0-4): Health=1; Fire=0; Reactivity=0; PPE=Goggles or Safety Glasses, Lab Coat, proper Gloves

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Acute Effects: Could cause eye and skin irritation. Exposure may cause irritation to mucous membranes and upper respiratory tract. May be harmful if swallowed.

Chronic Effects: Prolonged or repeated exposure to reagents may cause adverse reproductive effects. May cause fetal effects.

Potential Health Effects

Inhalation: Not determined

Ingestion: Not determined

Skin: Not determined

Eyes: Not determined

Chronic Exposures: Not determined

Target Organs: Not determined

4. First Aid

INHALATION: If inhaled, remove from exposure to fresh air. If required, provide artificial respiration. Seek immediate medical advise.

SKIN CONTACT: In case of contact, immediately flush skin with soap and copious amounts of water. Wash contaminated clothing before reuse.

EYE CONTACT: In case of contact with eyes, immediately flush eyes with flowing water for at least 15 minutes. Seek immediate medical advise.

INGESTION: If accidently swallowed, wash out mouth with water. Get medical aid.

5. Fire Fighting Measures

Suitable EXTINGUISHING agents: Product is not flammable. Use water spray, carbon dioxide, dry chemical powder or appropriate foam.

SPECIAL FIRE FIGHTING PROCEDURES: May emit toxic fumes under fire conditions. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

FLASH POINT: not determined

AUTOIGNITION TEMPERATURE: not known

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6. Accidental Release Measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits. Clean up spill immediately with inert material (e.g. vermiculite, sand), place in a suitable container.

Measures for cleaning/collecting: Ensure adequate ventilation.

7. Handling and Storage

Handling: Slight irritant. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Keep container well closed. Ensure proximity to safety shower and eye bath. Protective work clothing. Wash thoroughly after handling. Keep away from foodstuffs, beverages, and feed.

Storage: Store in a cool dry place, +2 °C to +8 °C.

8. Exposure Controls / Personal Protection

Personal protective equipment

Respiratory: Wear dust mask. Avoid prolonged or repeated inhalation and skin exposure.

Hand: Wear protective gloves. Wash hands thoroughly after handling.

Eye: Wear appropriate chemical safety glasses. Ensure proximity to safety shower and eye bath.

9. Physical and Chemical Protection

APPEARANCE: brown liquid form

SOLUBILITY: No

pH (+20 °C): N/A

FUSING TEMPERATURE: N/A

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BOILING POINT: N/A

FLASH POINT: N/A

EXPLOSION LIMIT: N/A

DENSITY: N/A

N/A = data not available

10. Stability and Reactivity

Stable under normal temperatures and pressures.

Incompatibilities: Is incompatible with strong oxidizing agents, aluminium, magnesium, acids, bases, calcium nitrate, pyridine, iodine, and sulfur trioxide.

Hazardous Combustion or Decomposition Products: Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, ammonia and chlorine may be released.

11. Toxicological Information

To the best of our knowledge, the chemical, physical, and toxicological properties of this formulation have not been thoroughly investigated. The product should be handled and treated with the usual caution of any unknown chemical.

Skin: If contacted, it may cause skin irritation.

Eye: If contacted, it may cause eye irritation.

Inhalation: If inhaled, it may be harmful. Materials may be irritating to muscous membranes and upper respiratory tract.

Ingestion: It may be harmful if swallowed.

12. Ecological Information

No data available. In the case of appropriate handling and use there is no expected ecological problem. Do not allow materials to be released to the environment without proper governmental permits. Consult federal, state, and local environmental regulations for proper disposal.

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13. Disposal Considerations

Follow all federal, state, EU, and local environmental regulations and guidelines. Call a licensed professional waste disposal service to dispose of this material. Any contaminated material or packaging should be treated the same as the material.

Recommendation: Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Note to disposal: No uniform regulations are present for the disposal of chemicals in the member States of the European Union.

14. Transport Information

Material is not hazardeous for transportation. No other data available.

15. Regulatory Information

None known.

16. Other Information

Material are for research and development (R&D) use only. Not for drug, household or other uses.

Disclaimer: To the best of our knowledge the information supplied in this document is believed to be correct but does not claim to be all inclusive, and is intended to be used as a guide. This document does not guarantee the properties of the product. Nanos Scientificae d.o.o. shall not be held liable for damage resulting from handling or contact with the product listed in this document.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Altought certain hazards are described herein, we do not guarantee that these are the only hazards that exist. Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.