

Material Safety Data Sheet (MSDS)

LIQUIDS RESEARCH LTD

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1 Product and Company Information

Product: Magnetite particles dispersed in water with biotin. Ferrofluid.

IN VITRO USE ONLY

Catalogue designation: BKS30

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2 Composition and Description

Magnetite: <10% by weight.

Water: >90% by weight

Additives: <30% by weight

CAS: 7732-18-5 (water component only),

CAS: 58-85-5 (biotin)

EC: 200-399-3

3 Hazards Identification

This product is not classified as dangerous. This product does not require any hazard warning on the label under established regulatory criteria. May be harmful if ingested in quantity. May be irritating to eyes and may irritate skin. Repeated or prolonged skin contact may result in severe irritation.

4 First Aid

Eyes: Irrigate thoroughly with clean water or an eye wash solution for at least 10 minutes.

Inhalation of smoke or mist: Remove from exposure, and seek medical attention.

Skin: Wash with soap and water. In severe cases obtain medical attention.

Ingestion: Do not induce vomiting, keep at rest and seek medical attention.

Effects of overexposure: No experience of overexposure.

5 Fire Fighting Measures

Unusual fire and explosion hazards: No data.

6 Accidental Release Measures

(As appropriate to quantity handled.)

Prevent spreading by diking, ditching, or absorbing on inert materials. Keep out of sewers and waterways.

7 Handling and Storage

Avoid contact with eyes and skin. Store in glass or HDPE bottles.

Storage temperature: Ambient

Transport temperature: Ambient

Electrostatic accumulation hazard: No data.

8 Exposure Controls / Personal Protection

Engineering Controls

Local exhaust ventilation: Not required

Exposure Limits: No data

Personal Protective Equipment

Respiratory protection is not required.

Hand: Gloves

Eye: Safety goggles.

Wash thoroughly after handling.

9 Physical Data

Appearance: Transparent liquid with brown tint

Melting Point: Not determined

Flash Point (carrier): Not applicable.

Boiling Point : 100°C (free form water)

Specific gravity: 1.0 to 1.3

Ignition temperature: Not applicable

Solubility in water: Soluble

Viscosity at 27°C: <5 cp

Vapor Pressure (mm Hg): 17.5 @ 20C (68F)

Volatile content: Water

Saturation magnetisation in Gauss: 0.1

Mean magnetic particle diameter: 10nm (100Å)

Magnetite concentration(approximate): 0.1 mg / mL of ferrofluid

10 Stability and Reactivity

Stability

Stable.

Incompatibility: Not known

Hazardous decomposition and by-products

If evaporated to dryness, Biotin residue may react with oxidising agents.

Hazardous Polymerisation

Will not occur.

11 Toxicity data:

Sensitisation

Respiratory: No data

Skin: May cause allergic skin reaction.

Eye: Irritating.

Routes to exposure

Skin contact: Possible irritant.

Eye contact: Irritation.

Inhalation: May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Chronic exposure

No data

12 Ecological Data

No data

13 Disposal Considerations

Contact a licensed professional waste disposal service. Observe all local environmental regulations. Not suitable for disposal by either landfill or via municipal sewers, drains, natural stream or rivers.

14 Transport Information

Not classed as hazardous for transport by RID/ADR, IATA AND/R.

15 Regulatory Information

Not hazardous according to ADR/RID, IMDG, IATA. (Free form biotin only)

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For further information please contact our technical department at the address given on page one.