

SAFETY DATA SHEET (SDS)


Ferro fluid

Issue date: 01-12-2023

Section 1: Product Identifier and Chemical Identity

Product Identifier	
Product Name:	Ferro fluid, magnetic liquid
Product Codes:	G80.10 G80.11
Other means of identification:	
Chemical formula, alternative names:	EFH series Ferrofluid Ferrofluid display cell
Recommended use of the chemical and restrictions on use	
Recommended Use:	For laboratory use only.
Suppliers name, address and phone number	
Suppliers Name:	Southern Biological
Suppliers ABN:	94 630 703 810
Suppliers Address:	168 Fulham Road Alphington Victoria 3078 Australia
Suppliers Phone No.:	1300 138 561
Emergency Phone number (BH)	1300 138 561

Section 2: Hazard Identification

Classification of the Hazardous Chemical	
Hazard Category	Skin Corrosion / Irritation: Category 2 Severe Eye Damage / Irritation: Category 2 Aspiration Toxicant: Category 1
Label elements	
Hazard Pictograms:	
Signal Word:	Danger
Hazard Statements:	H315 Cause skin irritation H319 Cause serious eye irritation H304 May be fatal if swallowed and enters airways
Precautionary Statements:	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest. Wash thoroughly after handling. Avoid release to the environment.

Other Hazards	
Results of PBT and vPvB assessment:	PBT: Not applicable VPvB: Not applicable

Section 3: Composition/information on ingredients

Ingredients		
Name	CAS	Proportion
Iron oxide (magnetite)	1309-38-2 R	3-15%
Oil soluble dispersant	Proprietary	6-30%
Distillates (petroleum) Hydrotreated light	64742-47-8	55-91%
The precise composition of this mixture is proprietary information		

Section 4: First Aid Measures

General Information	
After Inhalation:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms; Call a doctor.
After skin contact:	Wash with water and soap and rinse thoroughly. If skin irritation occurs, get medical advice/ attention. Remove contaminated clothing and wash before reuse.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice/ attention.
After swallowing:	Do not induce vomiting. Wash out mouth with water. Obtain emergency medical attention. Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting
Information for doctor:	
Most important symptoms and effects both acute and delayed:	Treat symptomatically.
Indications of any immediate medical attention and special treatment needed	This product should not cause any significant health issues. Take appropriate action for signs of allergic or sensitivity reaction. Notes to physicians: This product contains a fatty acid dispersant and Distillates (Petroleum), Hydrotreated Light. If breathing has stopped, try artificial respiration.

Section 5: Firefighting measures

Extinguishing media	
Suitable extinguishing agents:	CO ₂ , Foam, dry chemical, water spray (water spray may cause frothing)

Special hazards arising for the substance or mixture:	Burning may produce carbon monoxide and nitrogen oxides. Vapor mixed with air at temperatures above flash point may be explosive. Vapor is heavier than air.
Advice for firefighters	
Protective equipment:	Do not enter the fire area without proper protective equipment including respiratory equipment.

Section 6: Accidental release measures

General Information	
Personal precautions, protective equipment and emergency procedures:	Not required
Environmental precautions:	Remove free liquid. Add absorbent (sand, earth, sawdust) to spill area. After removing absorbent, wash surface with soap and water to reduce possible slipping hazard. If contamination of ground water is a concern, build a dike to contain spilled fluid, then clean as indicated. Prevent spilled fluid from entering sewers, water courses or low areas
Methods and material for containment and cleaning up:	Dispose of contaminating material as waste according to item 13. Ensure adequate ventilation.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on protective equipment. See Section 13 for disposal information.

Section 7: Handling and Storage

General Information	
Precautions for safe handling:	Ensure good ventilation/exhaustion at the workplace. Wash hands after handling. Do not eat drink or smoke when using this product. Wash contaminated clothing before reuse.
Information about fire – and explosion protection:	No special measures required.
Conditions for safe storage, including any incompatibilities.	
Storage:	Store in cool dry area out of direct sunlight and incompatible materials. Keep containers closed when not in use. Store in suitably labelled containers. If large quantities are stored, ground the storage container to prevent static buildup.
Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep container tightly sealed. Keep out of direct sunlight.
Specific end use(s):	No further relevant information available.

Section 8: Exposure controls/personal protection.

General information	
Additional information about design of technical facilities:	No further data: see section 7

Control parameters:	
Ingredients with limit values that require monitoring at the workplace: none	
Exposure Controls:	
General protective and hygienic measures:	Use only in systems, processes and procedures in which effective ventilation has been provided. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with eyes.
Respiratory protection:	Not required unless smoke, mists or vapours are produced.
Clothing / Foot-wear and equipment	No special requirements.
Protection of hands:	Rubber or plastic gloves to prevent prolonged or repeated contact with skin.
Eye protection:	Tightly sealed goggles
Skin protection:	Laboratory Coat

Section 9: Physical and chemical properties

Appearance:	
Form:	Liquid
Colour:	Black/brown
Odour:	Mild, faint
Odour Threshold:	Not determined
pH value:	Not determined
Change in Condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	223°C
Flash point:	95°C
Flammability (solid / gaseous)	Not determined
Ignition Temperature	
Decomposition temperature:	Not determined
Self-igniting:	215°C
Danger of explosion:	Not determined
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	0.1 kPa @ 20°C
Density:	1.21 - 1.42 g/cc
General Info	

Relative density:	Not determined
Vapour density:	6.4 (air = 1)
Evaporation rate:	< 0.01
Solubility in/ Miscibility with water:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	6 - <12 cP
Other information:	Not determined

Section 10: Stability and reactivity

Reactivity	
General	No further relevant information available.
Chemical Stability	
Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Will evaporate if left open to air. Avoid flame, spark and other ignition sources. Keep away from sewers and bodies of water.
Incompatible materials:	Strong oxidising agents
Hazardous decomposition products:	In the event of fire, see section 5.

Section 11: Toxicological information

Information on toxicological effects	
Acute toxicity	No data
Primary irritant effect:	
Inhalation:	May be fatal if swallowed and enters airways. Based on physico-chemical properties of the material
Skin corrosion/irritation:	May cause skin irritation
Serious eye damage/eye irritation:	May cause irritation to eyes and/or membranes
Respiratory or skin sensitization:	May cause respiratory irritation,
Chronic Toxicity:	
General	No data

Section 12. Ecological information

Toxicity	
Aquatic toxicity:	Variable data, not expected to be harmful to aquatic organisms

Persistence and degradability:	Expected to be inherently biodegradable
Behaviour in environmental systems	
Bio-accumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Additional ecological information	
Results of PBT and vPvB assessment	PBT: Not applicable vPvB: Not applicable
Other adverse effects:	No further relevant information available.

Section 13. Disposal Considerations

Waste treatment methods	
Recommendation	Prevent this material from entering waterways, drains and sewers. Comply with official regulations. High temperature incineration is recommended.
Uncleaned packaging:	
Recommendation:	Dispose of as unused product, high temperature incineration.

Section 14. Transport information

General	Not listed as a hazardous material.
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Section 15. Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances:	Substances are listed.
Standard for the Uniform Scheduling of Medicines and Poisons	S6
GHS label elements	None
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

Section 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.