

SAFETY DATA SHEET



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II – European Union (EU)

hs-Troponin I Assay Kit

MSDS no. 130206009M

1. Identification of the substance/preparation and company/undertaking

Identification of the substance or preparation

Product name	hs-Troponin I Kit
Product code	130206009M
Synonyms	N/A
Product type	Liquid
Use of the substance/preparation	Research agents

Company/undertaking identification

Manufactured/supplied	Diazyme Laboratories 12889 Gregg Court Poway, CA 92064, USA Tel. 858-455-4768 Fax. 858-455-3701
e-mail	support@diazyme.com
Emergency telephone number (with hours of operation)	858-455-4768

2. Hazards identification

The product is classified as dangerous according to Directive 1999/45/EC and its amendments

Classification	Xn; R22	
Physical/chemical hazards	hs-Troponin I Kit Nano magnetic microbeads	Not applicable
	hs-Troponin I Kit Calibrator low	Not applicable
	hs-Troponin I Kit Calibrator high	Not applicable
	hs-Troponin I Kit ABEI Label	Not applicable
Human health hazards	hs-Troponin I Kit Nano magnetic microbeads	Harmful if swallowed

SAFETY DATA SHEET



	hs-Troponin I Kit Calibrator low	Harmful if swallowed
	hs-Troponin I Kit Calibrator high	Harmful if swallowed
	hs-Troponin I Kit ABEI Label	Harmful if swallowed
Environmental hazards	hs-Troponin I Kit Nano magnetic microbeads	Not applicable
	hs-Troponin I Kit Calibrator low	Not applicable
	hs-Troponin I Kit Calibrator high	Not applicable
	hs-Troponin I Kit ABEI Label	Not applicable

3. Composition/information on ingredients

Substance/preparation:

Ingredient name	CAS number	%	EC number	Classification
hs-Troponin I Kit Nano magnetic microbeads Sodium azide	26628-22-8	0.2	247-852-1	T+; R28 [1] [2] R32 N; R50/53
hs-Troponin I Kit Calibrator low Sodium azide	26628-22-8	0.2	247-852-1	T+; R28 [1] [2] R32 N; R50/53
hs-Troponin I Kit Calibrator high Sodium azide	26628-22-8	0.2	247-852-1	T+; R28 [1] [2] R32 N; R50/53
hs-Troponin I Kit ABEI Label Sodium azide	26628-22-8	0.2	247-852-1	T+; R28 [1] [2] R32 N; R50/53

See section 16 for the full text of the R-phrases declared above. There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

4. First-aid measures

First-aid measures

Inhalation	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. 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.
Ingestion	130206009M.
	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Skin contact	if spatter onto skin, blot up by cloth or toilet paper, then wash with clean water; most of time, directly wash the skin with lots of clean water is enough.
Eye contact	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media:

Suitable	Use dry chemical, CO ₂ , water spray (fog) or foam.
Not suitable	None known.
Special exposure hazards	In a fire or if heated, a pressure increase will occur and the container may burst.
	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
Hazardous combustion products	No specific data.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SAFETY DATA SHEET



6. Accidental release measures

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)
Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling	Put on appropriate personal protective equipment (see section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers
Packaging materials	Use appropriate containment to avoid environmental contamination.
Recommended	Use original container.
Specific uses	Diagnostic agents.

8. Exposure controls/personal protection

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
hs-Troponin I Kit Nano magnetic microbeads	

SAFETY DATA SHEET



Sodium azide	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. Notes: as NaN₃ STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minute(s). TWA: 0.2 mg/m ³ , (as NaN ₃) 8 hour(s).
hs-Troponin I Kit Calibrator low	
Sodium azide	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. Notes: as NaN₃ STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minute(s). TWA: 0.2 mg/m ³ , (as NaN ₃) 8 hour(s).
hs-Troponin I Kit Calibrator high	
Sodium azide	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. Notes: as NaN₃ STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minute(s). TWA: 0.2 mg/m ³ , (as NaN ₃) 8 hour(s).
hs-Troponin I Kit ABEI Label	
Sodium azide	EH40/2005 WELs (United Kingdom (UK), 8/2007). Absorbed through skin. Notes: as NaN₃ STEL: 0.3 mg/m ³ , (as NaN ₃) 15 minute(s). TWA: 0.2 mg/m ³ , (as NaN ₃) 8 hour(s).

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.pressure mode.

SAFETY DATA SHEET



Skin protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

General information Appearance

Physical state	hs-Troponin I Kit Nano magnetic microbeads	Liquid
	hs-Troponin I Kit Calibrator low	Liquid
	hs-Troponin I Kit Calibrator high	Liquid
	hs-Troponin I Kit ABEI Label	Liquid
Colour	hs-Troponin I Kit Nano magnetic microbeads	Brown (after mix)
	hs-Troponin I Kit Calibrator low	Light Yellow
	hs-Troponin I Kit Calibrator high	Light Yellow
	hs-Troponin I Kit ABEI Label	Colourless

SAFETY DATA SHEET



Important health, safety and environmental information

pH	hs-Troponin I Kit Nano magnetic microbeads	7.4
	hs-Troponin I Kit Calibrator low	7.4
	hs-Troponin I Kit Calibrator high	7.4
	hs-Troponin I Kit ABEI Label	7.4
Boiling point	hs-Troponin I Kit Nano magnetic microbeads	100 °C
	hs-Troponin I Kit Calibrator low	100 °C
	hs-Troponin I Kit Calibrator high	100 °C
	hs-Troponin I Kit ABEI Label	100 °C
Melting point	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available
Flash point	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available
Explosion limits Vapour pressure	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available

SAFETY DATA SHEET



	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available
Relative density	hs-Troponin I Kit Nano magnetic microbeads	1.08
	hs-Troponin I Kit Calibrator low	0.95
	hs-Troponin I Kit Calibrator high	0.95
	hs-Troponin I Kit ABEI Label	0.95
Octanol/water partition coefficient	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available
Viscosity	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available
Evaporation rate (butyl acetate = 1)	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available

Other information

Auto-ignition temperature	hs-Troponin I Kit	Not available
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SAFETY DATA SHEET



	Nano magnetic microbeads	
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit Calibrator high	Not available
	hs-Troponin I Kit ABEI Label	Not available

10. Stability and Reactivity

Stability	The product is stable.
Conditions to avoid	No specific data.
Materials to avoid	No specific data.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological

Potential acute health effects

Inhalation	No known significant effects or critical hazards.
Ingestion	Harmful if swallowed.
Skin contact	No known significant effects or critical hazards.
Eye contact	No known significant effects or critical hazards.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
sodium azide	LD50 Dermal	rat	50 mg/kg	--
	LD50 Dermal	rabbit	20 mg/kg	--
	LD50 intratracheal	rat	47.5 mg/kg	--
	LD50 intratracheal	rat	47500ug/kg	--
	LD50 Oral	rat	27 mg/kg	--
	LD50 Subcutaneous	rat	45100ug/kg	--
	LD50 Subcutaneous	rat	45 mg/kg	--
	LDLo Intraperitoneal	rat	3 mg/kg	--
	LDLo Intraperitoneal	rat	30 mg/kg	--

Potential chronic health effects

Chronic toxicity

SAFETY DATA SHEET



Product/ingredient name	Result	Species	Dose	Exposure
Not available				

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available				

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Not available			

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available				

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental Species toxin	Dose	Exposure
Not available					

Chronic effects	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	No specific data.	
Ingestion	No specific data.	
Skin	No specific data.	
Eyes	No specific data.	
Other adverse effects	hs-Troponin I Kit Nano magnetic microbeads	Not available
	hs-Troponin I Kit Calibrator low	Not available
	hs-Troponin I Kit	Not available

SAFETY DATA SHEET



	Calibrator high	
	hs-Troponin I Kit ABEI Label	Not available

12. Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
sodium azide	—	Acute EC50 6.4 to 8.9 mg/L Freshwater	Crustaceans - Water flea - Simocephalus serrulatus - LARVAE	48 hours
	—	Acute EC50 4.2 to 6.2 mg/L Fresh water	Daphnia - Water flea - Daphnia pulex - LARVAE	48 hours
	—	Acute LC50 0.8mg/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1.4 g	96 hours
	—	Acute LC50 0.68 mg/L Fresh water	Fish – Bluegill Lepomis macrochirus - 0.6 g	96 hours
	—	Acute LC50 5460 to 5870 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 18.8 mm - 0.098 g	96 hours
	—	Acute LC50 3920ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 8.57 cm- 7.84 g	96 hours
	—	Acute LC50 2840ug/L Fresh water	Fish - Rainbow trout,Donaldson trout - Oncorhynchus mykiss - 7.87 cm- 6.07 g	96 hours
	—	Acute LC50 2750ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 7.32 cm- 4.76 g	96 hours

Conclusion/Summary Biodegradability	Not available
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SAFETY DATA SHEET



Conclusion/Summary	Not available.
Other adverse effects	No known significant effects or critical hazards.

13. Disposal considerations

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
European waste catalogue (EWC)	18 01 06* chemicals consisting of or containing dangerous substances
Hazardous waste	The classification of the product may meet the criteria for a hazardous waste. Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

14. Transport information

International transport regulations


Regulatory	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	—	—	—	—	—
ADNR Class	Not regulated.	—	—	—	—	—
IMDG Class	Not regulated.	—	—	—	—	—
IATA Class	Not regulated.	—	—	—	—	—

PG* : Packing group

15. Regulatory information

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Hazard symbol or symbols	 harmful
Risk phrases	R22- Harmful if swallowed
Safety phrases	S28- After contact with skin, wash immediately with plenty of water.
Contains	hs-Troponin I Kit Nano magnetic microbeads 247-852-1
	hs-Troponin I Kit Calibrator low 247-852-1

SAFETY DATA SHEET



	hs-Troponin I Kit Calibrator high	247-852-1
	hs-Troponin I Kit ABEI Label	247-852-1
Product use	Industrial applications.	
Europe inventory	Not determined.	

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)	R28- Very toxic if swallowed. R22- Harmful if swallowed. R32- Contact with acids liberates very toxic gas. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK)	T+ - Very toxic Xn – Harmful N - Dangerous for the environment
History	
Date of issue/Date of revision	June 19, 2014
revision Version	1
Prepared by	Diazyme Laboratories

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above- named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.