SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **Lactate dehydrogenase (LDH)**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Diagnostic reagent for the in-vitro quantitative determination of LDH in human serum and plasma on both automated and manual system.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS This substance does not meet the criteria for classification.

2.2 Label elements

Labelling not required

2.3 Other hazards

Results of PBT and vPvB assessment According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3 Composition/information on ingredients

3.1 Substances

Name of substance: Lactate dehydrogenase (LDH)
CAS No: 9001-60-9

SECTION 4 First aid measures

4.1 Description of first aid measures

General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Rinse cautiously with water for several minutes.

Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water, foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible.
Hazardous combustion products
Carbon monoxide (CO), Carbon dioxide (CO_2), May produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Control of dust.
6.2 Environmental precautions
Keep away from drains, surface and ground water.
6.3 Methods and material for containment and cleaning up
Advice on how to contain a spill
Covering of drains. Take up mechanically.
Advice on how to clean up a spill
Take up mechanically.
Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.
6.4 Reference to other sections
Hazardous combustion products: see section 5.
Personal protective equipment: see section 8.
Incompatible materials: see section 10.
Disposal considerations: see section 13.

SECTION 7 Handling and storage

7.1 Precautions for safe handling
No special measures are necessary.
Advice on general occupational hygiene Keep away from food, drink and animal feedingstuffs.
7.2 Conditions for safe storage, including any incompatibilities
Store in a dry place. Keep in a cool place.
Incompatible substances or mixtures
Observe hints for combined storage.
Consideration of other advice:
Ventilation requirements
Use local and general ventilation.
Specific designs for storage rooms or vessels
Recommended storage temperature: -20 °C
7.3Specific end use(s)
No information available.

SECTION 8 Exposure controls/personal protection

8.1 Control parameters
- There are no recommended or established controls for this product.

8.2 Exposure controls
- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved dust mask, NIOSH N95 (US) or type FFP1 (EN143) dust masks.

- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.

SECTION 8 Exposure controls/personal protection (continued…)

- Wear suitable protective clothing in accordance with good chemical hygiene practices.



SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: solid
Form: powder
Colour: whitish
Odour: characteristic
Melting point/freezing point: not determined
Boiling point or initial boiling point and boiling range: not determined
Flammability: this material is combustible, but will not ignite readily Lower and upper explosion limit: not determined
Flash point: not applicable
Auto-ignition temperature: not determined
Decomposition temperature: not relevant
pH (value): not applicable
Kinematic viscosity: not relevant
Solubility(ies) :Water solubility not determined
Partition coefficient
Partition coefficient n-octanol/water (log value): this information is not available Vapour pressure not determined
Density: not determined
Relative vapour density information on this property is not available
Particle characteristics: No data available.
Other safety parameters
Oxidising properties: none

9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics: There is no additional information.

SECTION 10 Stability and reactivity

10.1 Reactivity

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification acc. to GHS

This substance does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure). Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure). Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

Data are not available.

• If in eyes

Data are not available.

• If inhaled

Data are not available.

• If on skin

Data are not available.

• Other information

Health effects are not known.

11.2 Endocrine disrupting properties

Not listed.

SECTION 12 Ecological information

12.1 Toxicity .

Biodegradation

Data are not available.

12.2 Process of degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects Data are not available.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.
Sewage disposal-relevant information
Do not empty into drains.

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not Classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable

SECTION 14 Transport information (continued…)

- DOT Packing Group: Not applicable

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Not applicable

- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

SECTION 16 Other information

Date of Preparation: September 2019
Revision: Rev. 0
Replaces: New issue
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