

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/29/2024

Version No: 2.00

Reviewed on 02/29/2024

1 Identification

Product identifier

Please refer to attached coversheet for the exact product list

Trade name: Rho-1D4 Agarose / Rho-1D4 MagBeads
Recommended use: Chemical for R&D

Restrictions on use: No further relevant information available.

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Cube Biotech Inc.
987 Old Eagle School Road
STE 709
Wayne
PA 19087
USA
Phone: +1.484.270.6557
Fax: Fax +1.484.368.3558
E-Mail: contact@cube-biotech.com

Emergency telephone number: +1.484.270.6557 (during business hours)

2 Hazard(s) identification

Classification of the substance or mixture

Flammable Liquids 3 H226 Flammable liquid and vapor.

Label elements

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS02

Signal word Warning

Hazard statements

H226 Flammable liquid and vapor.

Precautionary statements

- | | |
|----------------|---|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting/equipment. |
| P242 | Use only non-sparking tools. |
| P243 | Take precautionary measures against static discharge. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P303+P361+P353 | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P370+P378 | In case of fire: Use CO2, powder or water spray to extinguish. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

Other hazards

Results of PBT and vPvB assessment

PBT: Not determined.

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vPvB: Not determined.

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3 Composition/information on ingredients**Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 64-17-5 ethanol

10 - < 24%

Additional information:

Product contains a substance with limited available safety information, and should therefore be handled with care.

4 First-aid measures**Description of first aid measures****General information:**

Take affected persons out of danger area and lay down.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation: Supply fresh air; consult doctor in case of complaints.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** Call a doctor immediately.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures**Extinguishing media****Suitable extinguishing agents:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents: Water with full jet**Special hazards arising from the substance or mixture** Can form explosive gas-air mixtures.**Advice for firefighters****Protective equipment:** Wear self-contained respiratory protective device.**Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective clothing.

Keep away from ignition sources.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions: Do not allow to enter sewers/ surface or ground water.**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage**Handling:****Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep receptacles tightly sealed.
Open and handle receptacle with care.
Work only in fume cabinet.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect from heat.

Conditions for safe storage, including any incompatibilities**Storage:**

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility: Store away from flammable substances.

Further information about storage conditions:

Keep receptacle tightly sealed.
Store receptacle in a well ventilated area.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see section 7.

Control parameters**Components with limit values that require monitoring at the workplace:****CAS: 64-17-5 ethanol**

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1000 ppm

A3

Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.
Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:

Protective gloves

Only use chemical-protective gloves with CE-labeling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Material of glovesButyl rubber, BR (≥ 0.5 mm)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

Body protection: Protective work clothing**Limitation and supervision of exposure into the environment** No further relevant information available.

9 Physical and chemical properties

Information on basic physical and chemical properties**General Information****Appearance:****Form:**

Suspension

Color:

According to product specification

Odor:

Characteristic

Odor threshold:

Not determined.

pH-value:

Not determined.

Change in condition**Melting point/Melting range:**

Not determined.

Boiling point/Boiling range:

Not determined.

Flash point:

> 23 °C (> 73.4 °F)

Flammability (solid, gaseous):

Not applicable.

Auto igniting:

425 °C (797 °F)

Decomposition temperature:

Not determined.

Danger of explosion:

Product does not present an explosion hazard.

Explosion limits:**Lower:**

3.5 Vol %

Upper:

15 Vol %

Oxidizing properties

No

Vapor pressure at 20 °C (68 °F):

59 hPa (44.3 mm Hg)

Density:

Not determined.

Relative density

Not determined.

Vapor density

Not determined.

Evaporation rate

Not determined.

Solubility in / Miscibility with**Water:**

Dispersible.

Partition coefficient (n-octanol/water):

64-17-5 ethanol - 0,35 logPow (24 °C, OECD Guideline107)

Viscosity:**Dynamic:**

Not determined.

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Not determined.

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Other information

No further relevant information available.

10 Stability and reactivity**Reactivity** No further relevant information available.**Chemical stability** No decomposition if used and stored according to specifications.**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

Possibility of hazardous reactions Forms explosive gas mixture with air.**Conditions to avoid** No further relevant information available.**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:**

Flammable gases/vapors

Carbon monoxide and carbon dioxide

11 Toxicological information**Information on toxicological effects****Acute toxicity:** Based on available data, the classification criteria are not met.**LD/LC50 values that are relevant for classification:****CAS: 64-17-5 ethanol**

Oral LD50 10470 mg/kg (Rat) (OECD Guideline 401)

Inhalative LC50 (4h) 124.7 mg/L (Rat) (OECD Guideline 403, inhalation:vapour)

Primary irritant effect:**on the skin:** Based on available data, the classification criteria are not met.**on the eye:** Based on available data, the classification criteria are not met.**Sensitization:** Based on available data, the classification criteria are not met.**Additional toxicological information:****Carcinogenic categories****IARC (International Agency for Research on Cancer)**

CAS: 64-17-5 ethanol: 1 (in alcoholic beverages)

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information**Toxicity****Aquatic toxicity:****CAS: 64-17-5 ethanol**LC50 (48h) (static) 5012 mg/L (Daphnia) (ASTM E729-80, Ceriodaphnia dubia)
nominal

LC50 (96h) (dynamic) 11200 mg/L (fish) (US EPA method E03-05, Pimephales promelas)

EC10 (static) 86 mg/L (algae) (OECD Guideline 201, Chlorella vulgaris)
4d, nominalEC50 (static) 675 mg/L (algae) (OECD Guideline 201, Chlorella vulgaris)
4d, nominalNOEC 2 mg/L (Daphnia) (Ceriodaphnia dubia)
10d,
nominal

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250 mg/L (fish) (OECD Guideline 212, Danio rerio)
120h

Persistence and degradability

64-17-5 ethanol 84 % (20d)

Behavior in environmental systems:**Bioaccumulative potential** No further relevant information available.**Mobility in soil** No further relevant information available.**Other adverse effects** No further relevant information available.**13 Disposal considerations****Waste treatment methods****Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings**Recommendation:** Disposal must be made according to official regulations.**14 Transport information****UN-Number**

DOT, ADR/RID/ADN, IMDG, IATA

Void

UN proper shipping name

DOT, ADR/RID/ADN, IMDG, IATA

Void

Transport hazard class(es)

DOT, ADR/RID/ADN, IMDG, IATA

Class

Void

Packing group

DOT, ADR/RID/ADN, IMDG, IATA

Void

Environmental hazards:

Not applicable.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

15 Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

SARA**Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act) Inventory:

All components have the value ACTIVE.

Hazardous Air Pollutants

None of the ingredients is listed.

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Proposition 65**Chemicals known to cause cancer:**

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

CAS: 64-17-5 ethanol

New Jersey Right-to-Know List:

CAS: 64-17-5 ethanol

New Jersey Special Hazardous Substance List:

CAS: 64-17-5 ethanol: CA, MU, TE, F3

Pennsylvania Right-to-Know List:

CAS: 64-17-5 ethanol

Pennsylvania Special Hazardous Substance List:

None of the ingredients is listed.

Carcinogenicity categories**EPA (Environmental Protection Agency)**

None of the ingredients is listed.

TLV (Threshold Limit Value)

CAS: 64-17-5 ethanol: A3

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

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.

Department issuing SDS:**Date of preparation / last revision** 02/29/2024**Abbreviations and acronyms:**

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

UN: United Nations (also UNO: United Nations Organization)

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

ASTM: American Society for Testing and Materials

WAF: Water Accommodated Fraction

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 3: Flammable liquids – Category 3