

Material Safety Data Sheet

Revision Date: 03-Feb-2012

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code MUBMD-01001

Product name C57BL/6 Mouse Adipose-derived Mesenchymal Stem Cells

Company/Undertaking Identification

Cyagen Biosciences Inc. 574 East Weddell Dr, Suite 6 Sunnyvale, CA 94089, U.S.A.

Tel: 800-921-8931

For research use only

2. COMPOSITION/IN FORMATION ON INGREDIENTS

Hazardous/Non-hazardous Components

| Chemical Name | CAS-No | Weight % |
|-------------------|---------|----------|
| dimethylsulfoxide | 67-68-5 | 10 |

The product contains no substances which at their given concentration, are considered to be hazardous to health.

3. HAZARDS IDENTIFICATION

Emergency Overview

Components of the product may be absorbed into the body through the skin

Form Liquid

3. HAZARDS IDENTIFICATION

Principle Routes of Exposure/ Potential Health effects

Eyes Mild eye irritation.

Skin moderate skin irritation. Components of the product may be absorbed into the body

through the skin.

InhalationNo information availableIngestionMay be harmful if swallowed.

Specific effects

Carcinogenic effectsNo information availableMutagenic effectsNo information availableReproductive toxicityNo information availableSensitizationNo information available

<u>Target Organ Effects</u> No information available

HMIS

| Health | 1 |
|--------------|---|
| Flammability | 0 |
| Reactivity | 0 |

4. FIRST AID MEASURES

Skin contactWash off immediately with plenty of water

Eye contact
Ingestion

Rinse thoroughly with plenty of water, also under the eyelids.
Never give anything by mouth to an unconscious person

Inhalation Move to fresh air Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Special protective equipment

for firefighters

Dry chemical

Wear self-contained breathing apparatus and protective suit

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Methods for cleaning up

Use personal protective equipment Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Handling No special handling advice required Storage Keep in properly labelled containers

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Exposure limits

| Chemical Name | OSHA PEL (TWA) | OSHA PEL (Ceiling) | ACGIH OEL (TWA) | ACGIH OEL (STEL) |
|-------------------|----------------|--------------------|-----------------|------------------|
| dimethylsulfoxide | - | - | - | - |

Engineering measures Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Respiratory protection

Hand protection

In case of insufficient ventilation wear suitable respiratory equipment

Handle in accordance with good industrial hygiene and safety practice

Impervious butyl rubber gloves. Nitrile gloves are not recommended. Some brands of Nitrile gloves have breakthrough times of five minutes. Nitrile gloves are not recomended. Some brands of Nitrile gloves have breakthrough times of five minutes.

Safety glasses with side-shields

Eye protection Skin and body protection

Light weight protective clothing.

Hygiene measures

Environmental exposure

controls

Prevent product from entering drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Liquid **Form**

Important Health Safety and Environmental Information

Boiling point/range °F No data available °C No data available Melting point/range °C No data available °F No data available °C No data available Flash point °F No data available °C No data available °F No data available

Autoignition temperature **Oxidizing properties**

Water solubility

No information available

soluble

10. STABILITY AND REACTIVITY

Stable. Stability

Materials to avoid No information available **Hazardous decomposition** No information available

products

Polymerization Hazardous polymerisation does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

| Chemical Name LD50 (oral,rat/mouse) | | LD50 (dermal, rattrab bit) | LD50 (inhalation, rat/mouse) | |
|-------------------------------------|-------------------|----------------------------|------------------------------|--|
| dimethylsulfoxide | 14500 mg/kg (Rat) | No data available | No data available | |

Principle Routes of Exposure/

Potential Health effects

Eve Mild eye irritation.

Skin moderate skin irritation. Components of the product may be absorbed into the body

through the skin.

Inhalation No information available Ingestion May be harmful if swallowed.

Specific effects

Carcinogenic effects No information available **Mutagenic effects** No information available Reproductive toxicity No information available Sensitization No information available

Target Orcia Effects No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity effectsNo information available.MobilityNo information available.BiodegradationInherently biodegradable.BioaccumulationDoes not bioaccumulate.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

IATA

Proper shipping name Hazard Class

Subsidiary Class Packing group

UN-No

Not classified as dangerous in the meaning of transport regulations

No information available No information available No information available No information available

15. REGULATORY INFORMATION

International Inventories

| Chemical Name | TSCA | PICCS | ENCS | DSL | NDSL | AICS |
|-------------------|--------|--------|--------|--------|------|--------|
| dimethylsulfoxide | Listed | Listed | Listed | Listed | - | Listed |

U.S. Federal Reciulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CIFIR 61)

This product does not contains HAPs.

U.S. State Reaulations

| Chemical Name | Massachusefts- RTK | New Jersey - RTK | Pennsylvania - RTK | Illinois - RTK | Rhode Island - RTK |
|-------------------|-----------------------|------------------|-----------------------|----------------|-----------------------|
| dimethylsulfoxide | | | | | |

California Proposition 65

This product does not contain chemicals listed under Proposition 65

WHMIS hazard class:

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. OTHER INFORMATION

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since Cyagen Biosciences Inc. cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTCULAR PURPOSE.

End of Safety Data Sheet