

DISCOZYME 1, ACF EFFECTIVE DATE: 2016-07-25

1 Product and Company Identification

1.1 Product Name: DisCoZyme 1, ACF

1.2 Product Identifier: Proteinase, Collagenase

1.3 Catalog Number: 07449

1.4 Product Use: Laboratory reagent

1.5 Manufacturer/Supplier: STEMCELL Technologies Inc.

Suite 500-1618 Station Street

Vancouver, British Columbia V6A 1B6 Canada

1.6 In Case of Emergency Call: 1-800-667-0322

2 Hazards Identification

2.1 Classification of the substance or mixture

Skin Corrosion/Irritation, Category 2

Serious Eye Damage/Eye Irritation, Category 2A

Respiratory Sensitization, Category 1

Specific Target Organ Toxicity (Single Exposure), Category 3, Respiratory System

2.2 Label elements

Pictogram



Signal word Danger

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled.

H335 May cause respiratory irritation.

Precautionary statement(s)

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/eye protection/ face protection.
P285 In case of inadequate ventilation wear respiratory protection.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+341 IF INHALED If breathing is difficult, remove victim to fresh air

and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell. P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing.



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|-------------------|---|--|--|
| P332+313 | If skin irritation occurs: Get medical advice/ attention. | | |
| P337+313 | If eye irritation persists, get medical advice/attention. | | |
| P342+311 | If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. | | |
| P362 | Take off contaminated clothing and wash before reuse. | | |
| 2.3 Other hazards | No data available | | |

3 Composition / Information on Ingredients

3.1 Substances

Synonyms Colstridium histolyticum collagenase; Collagenase I; Neutral protease;

Proteinase; collagenase mix; discozyme; dispase mix; dispase

| Hazardous Components (Chemical Name) | CAS# | Concentration | EC# |
|--------------------------------------|------------|---------------|-----------|
| Proteinase | 42613-33-2 | N/A | 255-914-4 |
| Collagenase | 9001-12-1 | N/A | 232-582-9 |

4 First Aid Measures

4.1 Description of first aid measures

4.1.1 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

4.1.2 In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

4.1.3 In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

4.1.4 If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2.2 and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5 Fire Fighting Measures

5.1 Extinguishing Media

5.1.1 Suitable Extinguishing Media

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

5.1.2 Unsuitable Extinguishing Media

No data available

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5.2 Special hazards arising from the substance or mixture

5.2.1 Flammable Properties and Hazards

Not flammable or combustible.

5.2.2 Flash Pt

No data available

5.2.3 Autoignition Pt

No data available

5.2.4 Explosive Limits

LEL: No data available UEL: No data available

5.2.5 Hazardous Combustion Products

No data available

5.3 Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

8 Exposure Controls/Personal Protection

8.1 Exposure limits

Contains no substances with occupational exposure limit values.

8.2 Engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

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8.3 Personal protective equipment

8.3.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.3.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.3.3 Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3.4 General hygiene considerations

General industrial hygiene practice.

8.3.5 Environmental exposure controls

Do not let product enter drains.

9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Powder **Appearance** Odour No data available Odour threshold No data available No data available pΗ Melting point/freezing point No data available Boiling point/boiling range No data available Flash point No data available Evaporation rate No data available Flammability (solid, gas) No data available Upper/lower flammability or explosive limits No data available No data available Vapour pressure Vapour density No data available Relative density No data available Solubility No data available Partition coefficient: n-octanol/water No data available Auto-ignition temperature No data available Decomposition temperature No data available No data available Viscosity

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10 Stability and Reactivity

10.1 Reactivity No data available

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions No data available10.4 Conditions to avoid No data available

10.5 Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition productsNo data available

11 Toxicological Information

11.1 Acute toxicity

Oral: No data available

Inhalation: Irritating to respiratory system.

Dermal: No data available
Other: No data available

11.2 Skin corrosion/irritation

No data available

11.3 Serious eye damage/eye irritation

No data available

11.4 Respiratory and/or skin sensitization

May cause allergic respiratory reaction.

11.5 Germ cell mutagenicity

No data available

11.6 Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is

identified as A carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by OSHA.

11.7 Reproductive toxicity

No data available

11.8 Specific target organ toxicity - single exposure

May cause respiratory irritation.

11.9 Specific target organ toxicity - repeated exposure

No data available

11.10 Aspiration hazard

No data available

11.11 Potential health effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

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Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes serious eye irritation.

11.12 Signs and symptoms of exposure

Prolonged or repeated exposure can cause asthma Stomach - Irregularities - Based on Human Evidence

To the best of our knowledge, the chemical, physical, and toxicological properties have not

been thoroughly investigated.

11.13 RTECS # No data available

12 Ecological Information

12.1 ToxicityNo data available12.2 Persistence and degradabilityNo data available12.3 Bioaccumulative potentialNo data available12.4 Mobility in soilNo data available12.5 Other adverse effectsNo data available

13 Disposal Considerations

13.1 Waste disposal method

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

13.2 Contaminated packaging

Dispose of as unused product.

14 Transport Information

14.1 UN number No data available

14.2 UN proper shipping name DOT Not dangerous goods

ADR/RID Not dangerous goods IMDG Not dangerous goods IATA Not dangerous goods

14.3 Transport hazard class(es) No data available

14.4 Packing group No data available

14.5 Environmental hazardsNo data available

14.6 Special precautionsNo data available

15 Regulatory Information

15.1 USA

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Safety Data Sheet

DISCOZYME 1, ACF

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312:

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Component CAS # Revision Date
Proteinase 42613-33-2
Collagenase 9001-12-1

New Jersey Right To Know Components

Component CAS # Revision Date

Proteinase 42613-33-2 Collagenase 9001-12-1

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

15.2 EU

This SDS was prepared in accordance with Regulation (EC) No.1272/2008.

15.3 Canada

WHMIS Classification:

D2A Very Toxic Material Causing Other Toxic Effects Respiratory sensitizer

Moderate respiratory irritant

D2B Toxic Material Causing Other Toxic Effects Moderate skin irritant

Moderate eve irritant

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

16 Other Information

16.1 Prepared by: Quality Control, STEMCELL Technologies Inc.

16.2 Revision: N/A

16.3 Notice: The above information is believed to be correct but does not purport to be all

inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to

amendment by STEMCELL Technologies Inc.

16.4 Disclaimer: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR

HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.