# >BIOMFDICA

# SAFETY DATA SHEET

1. Identification

**Product identifier DMSO** 

Other means of identification

Product code in 812 & 812RUO, ACTIFLUOR™ ADAMTS13 Activity

Recommended use Assorted. Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

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7 cblf UWibi a VYf MIS9591327

2. Hazard(s) identification

**Physical hazards** Not classified. **Health hazards** Not classified. **OSHA** defined hazards Not classified.

Label elements

None. Hazard symbol None. Signal word

**Hazard statement** The substance does not meet the criteria for classification.

**Precautionary statement** 

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

None known.

# 3. Composition/information on ingredients

## **Substances**

Chemical name	Common name and synonyms	CAS number	%
Dimethyl sulfoxide		67-68-5	100

All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (I).

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eve contact** Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

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Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

treatment needed **General information**  Treat symptomatically.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

Exposure may cause temporary irritation, redness, or discomfort.

Do not use water jet as an extinguisher, as this will spread the fire.

protect themselves.

Powder. Foam. Carbon dioxide (CO2).

5. Fire-fighting measures

Suitable extinguishing media

Specific hazards arising from

Unsuitable extinguishing

media

the chemical

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials. Specific methods

During fire, gases hazardous to health may be formed.

General fire hazards No unusual fire or explosion hazards noted.

## 6. Accidental release measures

Personal precautions. protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** 

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid prolonged exposure. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store in original tightly closed container. Store away from incompatible materials (see Section 10

of the SDS). Store at 2 - 8°C.

## 8. Exposure controls/personal protection

## Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Dimethyl sulfoxide (CAS TWA 250 ppm 67-68-5)	Material	Туре	Value	
,		TWA	250 ppm	

**Biological limit values** 

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles). Eye/face protection

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

**DMSO** SDS US 928730 Version #: 02 Revision date: 14-July-2017 2/6 Thermal hazards Wear appropriate thermal protective clothing, when necessary.

**General hygiene** considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

## 9. Physical and chemical properties

**Appearance** 

Physical state Liquid. **Form** Liquid.

Color Colorless, clear.

Odor Slight.

Odor threshold Not available. Not available.

Melting point/freezing point 65.21 °F (18.45 °C) 372.2 °F (189 °C) Initial boiling point and boiling

range

203.0 °F (95.0 °C) Flash point **Evaporation rate** Not available. Not applicable. Flammability (solid, gas) Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

0.1 kPa at 20 °C Vapor pressure Not available. Vapor density 1.1 g/l

Relative density

Solubility(ies)

Water soluble. Solubility (water) **Auto-ignition temperature** 419 °F (215 °C) **Decomposition temperature** Not available. 1.1 cP 27 °C **Viscosity** 

Other information

Not explosive. **Explosive properties** Oxidizing properties Not oxidizing.

## 10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Strong oxidizing and reducing agents. Strong acids. Acid chlorides. Alkaline metals. Isocyanates. Incompatible materials

**Hazardous decomposition** 

products

No hazardous decomposition products are known.

## 11. Toxicological information

## Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Prolonged skin contact may cause temporary irritation. Skin contact Direct contact with eyes may cause temporary irritation. Eye contact

May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of Ingestion

occupational exposure.

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Symptoms related to the physical, chemical and toxicological characteristics Exposure may cause temporary irritation, redness, or discomfort.

Information on toxicological effects

Acute toxicity May cause discomfort if swallowed.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer. Skin sensitization Not a skin sensitizer.

Based on available data, the classification criteria are not met. Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Based on available data, the classification criteria are not met. Specific target organ toxicity -Based on available data, the classification criteria are not met.

single exposure

Specific target organ toxicity repeated exposure

Based on available data, the classification criteria are not met.

Not classified. **Aspiration hazard** 

No other specific acute or chronic health impact noted. **Further information** 

12. Ecological information

No ecotoxicity data noted for the ingredient(s). **Ecotoxicity** 

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil The product is soluble in water.

Other adverse effects The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. **Disposal instructions** 

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Not applicable. Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

SDS US **DMSO** 

## 15. Regulatory information

**US** federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard

Communication Standard, 29 CFR 1910.1200.

## TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

No

chemical

#### SARA 313 (TRI reporting)

Not regulated.

## Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

## Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act** 

Not regulated.

(SDWA)

#### **US state regulations**

## **US. Massachusetts RTK - Substance List**

Not regulated.

## US. New Jersey Worker and Community Right-to-Know Act

Dimethyl sulfoxide (CAS 67-68-5)

## US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

#### **US. Rhode Island RTK**

Not regulated.

#### **US. California Proposition 65**

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

## **International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

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Country(s) or region Inventory name On inventory (yes/no)\*

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

# 16. Other information, including date of preparation or last revision

**Issue date** 01-December-2017

Revision date 14-July-2017

Version # 02

NFPA ratings



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DMSO SDS US