

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

### 1.1. Product identifier

<b>Trade name or designation of the mixture</b>	Assay Buffer
<b>Registration number</b>	-
<b>Synonyms</b>	None.
<b>Product code</b>	Assay buffer, in 812 & 812RUO, ACTIFLUOR™ ADAMTS13 Activity
<b>Issue date</b>	01-December-2017
<b>Version number</b>	02
<b>Revision date</b>	14-July-2017
<b>Supersedes date</b>	21-June-2015

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

<b>Identified uses</b>	Assorted.
<b>Uses advised against</b>	Use in accordance with supplier's recommendations.

### 1.3. Details of the supplier of the safety data sheet

**Corporate Headquarters** BioMedica Diagnostics Inc.  
 94 Wentworth Road, PO Box 1030  
 Windsor, Nova Scotia CANADA B0N 2T0

**Contact person** Corporate Phone: 1-902-798-5105  
 Corporate Fax: 1-902-798-1025  
 Email: info@biomedicadiagnostics.com  
 Website: www.biomedicadiagnostics.com

**1.4. Emergency telephone number** US, Canada, Puerto Rico & Virgin Islands 1-800-255-3924  
 International +1-813-248-0585  
 Australia 1-300-954-583  
 Brazil 0-800-591-6042  
 China 400-120-0751  
 India 000-800-100-4086  
 Mexico 01-800-099-0731

**Contract number** MIS9591327

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

##### Health hazards

Acute toxicity, oral	Category 4	H302 - Harmful if swallowed.
Acute toxicity, dermal	Category 3	H311 - Toxic in contact with skin.
Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.

##### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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**Hazard summary** Toxic in contact with skin. Harmful if swallowed. Irritating to eyes, respiratory system and skin.

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** 4-Morpholinopropansulphonic acid, Sodium azide

## Hazard pictograms



## Signal word

Danger

## Hazard statements

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.

## Precautionary statements

### Prevention

P261	Avoid breathing dust.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye protection/face protection.
P280	Wear protective gloves/protective clothing.

### Response

P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.

### Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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**Supplemental label information** EUH032 - Contact with acids liberates very toxic gas.

**2.3. Other hazards** Not a PBT or vPvB substance or mixture.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
4-Morpholinopropansulphonic acid	60 - 70	1132-61-2 214-478-5	-	-	
<b>Classification:</b>	Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335				
Sodium chloride	15 - 20	7647-14-5 231-598-3	01-2119485491-33-XXXX	-	
<b>Classification:</b>	-				
Calcium chloride, dihydrate	10 - 15	10035-04-8	-	-	
<b>Classification:</b>	Eye Irrit. 2;H319				
Sodium azide	1 - 4	26628-22-8 247-852-1	-	011-004-00-7	#
<b>Classification:</b>	Acute Tox. 2;H300, Acute Tox. 1;H310, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				

## List of abbreviations and symbols that may be used above

#: This substance has been assigned Community workplace exposure limit(s).

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## SECTION 4: First aid measures

**General information** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 4.1. Description of first aid measures

**Inhalation** Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

**Skin contact** Wash off immediately with plenty of water. Call a POISON CENTRE or doctor/physician if you feel unwell. Get medical attention if irritation develops and persists.

**Eye contact** In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

**Ingestion** Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

**4.2. Most important symptoms and effects, both acute and delayed** Symptoms include itching, burning, redness and tearing.

**4.3. Indication of any immediate medical attention and special treatment needed** Treat symptomatically. Symptoms may be delayed.

## SECTION 5: Firefighting measures

**General fire hazards** Will burn if involved in a fire.

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.

**Unsuitable extinguishing media** None known.

**5.2. Special hazards arising from the substance or mixture** Fire will generate toxic and irritating gases. When heated to decomposition, may produce hydrazoic acid fumes.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special fire fighting procedures** Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Avoid dust formation. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**For emergency responders** Use personal protection as recommended in section 8 of the SDS.

**6.2. Environmental precautions** Do not allow to enter drains, sewers or watercourses. This mixture contains a small amount of sodium azide which can react with copper, lead, brass or solder in plumbing systems and form potentially explosive metal azides. Follow proper disposal procedures.

**6.3. Methods and material for containment and cleaning up** Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13.

**6.4. Reference to other sections** For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Avoid inhalation of dust. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed. Wash thoroughly after handling. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Store at 2-8°C (35-46°F). Store in a closed container away from incompatible materials.

**7.3. Specific end use(s)** Assorted.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Sodium azide (CAS 26628-22-8)	STEL	0.3 mg/m <sup>3</sup>
	TWA	0.1 mg/m <sup>3</sup>

##### EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Sodium azide (CAS 26628-22-8)	STEL	0.3 mg/m <sup>3</sup>
	TWA	0.1 mg/m <sup>3</sup>

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Follow standard monitoring procedures.

**Derived no-effect level (DNEL)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

#### Exposure guidelines

##### UK EH40 WEL: Skin designation

Sodium azide (CAS 26628-22-8) Can be absorbed through the skin.

### 8.2. Exposure controls

**Appropriate engineering controls** Observe occupational exposure limits and minimise the risk of inhalation of dust and fumes.

#### Individual protection measures, such as personal protective equipment

**General information** Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

**Eye/face protection** Wear approved safety glasses or goggles.

##### Skin protection

- **Hand protection** Wear appropriate chemical resistant gloves.

- **Other** Remove contaminated clothing promptly.

**Respiratory protection** In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practices.

**Environmental exposure controls** Inform appropriate managerial or supervisory personnel of all environmental releases.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Appearance** White powder.

**Physical state** Solid.

**Form** Powder.

**Colour** White.

**Odour** None.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

## Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** Not available.

**Vapour density** Not available.

**Relative density** Not available.

**Solubility(ies)** Soluble.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not available.

**Oxidizing properties** Not available.

**9.2. Other information** No relevant additional information available.

## SECTION 10: Stability and reactivity

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

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

**10.3. Possibility of hazardous reactions** Contact with acids liberates toxic gas.

**10.4. Conditions to avoid** Contact with acids. Heat, flames and sparks.

**10.5. Incompatible materials** Strong oxidising agents. Strong acids. Strong reducing agents.

**10.6. Hazardous decomposition products** Thermal decomposition can lead to release of irritating gases and vapors, including hydrazoic acid vapor. Carbon oxides. Nitrogen oxides.

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

**Inhalation** Dust may irritate respiratory system.

**Skin contact** Toxic in contact with skin. Irritating to skin.

**Eye contact** Causes serious eye irritation.

**Ingestion** Harmful if swallowed.

**Symptoms** Symptoms include itching, burning, redness and tearing.

### 11.1. Information on toxicological effects

**Acute toxicity** Harmful if swallowed. Toxic in contact with skin.

Components	Species	Test results
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Calcium chloride, dihydrate (CAS 10035-04-8)

**Acute**

*Oral*

LD50	Rat	> 1000 mg/kg
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Sodium azide (CAS 26628-22-8)

**Acute**

*Dermal*

LD50	Rabbit	20 mg/kg
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*Oral*

LD50	Rat	27 mg/kg
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**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory sensitisation** Not classified.

**Skin sensitisation** Not classified.

**Germ cell mutagenicity** Not classified.

<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	No other specific acute or chronic health impact noted.

## SECTION 12: Ecological information

**12.1. Toxicity** Toxic to aquatic life with long lasting effects.

Components	Species	Test results
Sodium azide (CAS 26628-22-8)		
<b>Aquatic</b>		
Algae	EC50 Pseudokirchnerella subcapitata	0.35 mg/l, 96 hours
Fish	LC50 Fish	5.7 mg/l, 96 hours

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

**12.3. Bioaccumulative potential** Not available.

**Partition coefficient n-octanol/water (log Kow)** Not available.

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No data available.

**Mobility in general** The product is soluble in water.

**12.5. Results of PBT and vPvB assessment** Not a PBT or vPvB substance or mixture.

**12.6. Other adverse effects** No data available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Residual waste** Dispose in accordance with all applicable regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**EU waste code** The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Disposal methods/information** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This preparation contains a small amount of sodium azide which can react with copper, lead, brass or solder in plumbing systems and form potentially explosive metal azides. If preparation enters drain, flush with a large volume of water to prevent azide build-up.

## SECTION 14: Transport information

### ADR

**14.1. UN number** UN3288

**14.2. UN proper shipping name** Toxic solid, inorganic, n.o.s. (Sodium azide)

**14.3. Transport hazard class(es)**

**Class** 6.1

**Subsidiary risk** -

**Label(s)** 6.1

**Hazard No. (ADR)** 60

**Tunnel restriction code** E

**14.4. Packing group** III

**14.5. Environmental hazards** Yes

**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

### RID

**14.1. UN number** UN3288

**14.2. UN proper shipping name** Toxic solid, inorganic, n.o.s. (Sodium azide)  
**14.3. Transport hazard class(es)**  
    **Class** 6.1  
    **Subsidiary risk** -  
    **Label(s)** 6.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** Yes  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### ADN

**14.1. UN number** UN3288  
**14.2. UN proper shipping name** Toxic solid, inorganic, n.o.s. (Sodium azide)  
**14.3. Transport hazard class(es)**  
    **Class** 6.1  
    **Subsidiary risk** -  
    **Label(s)** 6.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** Yes  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IATA

**14.1. UN number** UN3288  
**14.2. UN proper shipping name** Toxic solid, inorganic, n.o.s. (Sodium azide)  
**14.3. Transport hazard class(es)**  
    **Class** 6.1  
    **Subsidiary risk** -  
    **Label(s)** 6.1  
**14.4. Packing group** III  
**14.5. Environmental hazards** Yes  
**ERG Code** 6L  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

**14.1. UN number** UN3288  
**14.2. UN proper shipping name** TOXIC SOLID, INORGANIC, N.O.S. (Sodium azide)  
**14.3. Transport hazard class(es)**  
    **Class** 6.1  
    **Subsidiary risk** -  
    **Label(s)** 6.1  
**14.4. Packing group** III  
**14.5. Environmental hazards**  
    **Marine pollutant** Yes  
**EmS** F-A, S-A  
**14.6. Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

#### General information

The transportation information provided represents the regulatory transport classification of the product without consideration to packaging, quantity, or modal restrictions and exceptions. It is the user's responsibility to determine the appropriate packaging and modal requirements and/or limitations for the product quantity being shipped. It may be eligible for Excepted Quantity exemption, dependant on quantity of units within the outer package.

## SECTION 15: Regulatory information

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

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Calcium chloride, dihydrate (CAS 10035-04-8)

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended**

Not listed.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended**

Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances**

Sodium azide (CAS 26628-22-8)

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Calcium chloride, dihydrate (CAS 10035-04-8)

Sodium azide (CAS 26628-22-8)

**Directive 94/33/EC on the protection of young people at work**

Sodium azide (CAS 26628-22-8)

#### Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives.

Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work.

#### National regulations

The product has been classified according to the legislation in force.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

#### List of abbreviations

LD50: Lethal Dose, 50%.

#### References

IARC Monographs. Overall Evaluation of Carcinogenicity  
HSDB (2005)

#### Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

#### Full text of any H-statements not written out in full under Sections 2 to 15

H300 Fatal if swallowed.

H310 Fatal in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.



**Training information**

Follow training instructions when handling this material.

**Disclaimer**

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