(2012 OSHA Hazard Communication Standard (29 CFR 1910.1200))

SAFETY DATA SHEET

SIEMENS

Atellica™ IM B-Type Natriuretic Peptide (BNP)

SDS # : 10995471

Section 1. Identification

Product identifier : Atellica™ IM B-Type Natriuretic Peptide (BNP)

Product code : 10995471, 10995472

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Manufactured/supplied : Siemens Healthcare Diagnostics Inc.
511 Benedict Avenue
Tarrytown, NY 10591-5097 USA
1-877-229-3711

(800) 424-9300 (CHEMTREC) (24/365)

Section 2. Hazards identification

OSHA/HCS status : BNP Solid Phase — While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

BNP Lite Reagent — While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : BNP Solid Phase — Not classified.
BNP Lite Reagent — Not classified.

Additional information : Not available.

Not available.

GHS label elements

Signal word : BNP Solid Phase — No signal word.
BNP Lite Reagent — No signal word.

Hazard statements : BNP Solid Phase — No known significant effects or critical hazards.

BNP Lite Reagent — No known significant effects or critical hazards.

Precautionary statements

Prevention : BNP Solid Phase — Not applicable.
BNP Lite Reagent — Not applicable.

Response : BNP Solid Phase — Not applicable.
BNP Lite Reagent — Not applicable.

Storage : BNP Solid Phase — Not applicable.
BNP Lite Reagent — Not applicable.

Section 2. Hazards identification

Disposal	:	BNP Solid Phase BNP Lite Reagent	Not applicable. Not applicable.
Supplemental label elements	:	BNP Solid Phase BNP Lite Reagent	None known. None known.
Hazards not otherwise classified	:	BNP Solid Phase BNP Lite Reagent	None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	BNP Solid Phase BNP Lite Reagent	Mixture Mixture

Ingredient name	%	CAS number
BNP Solid Phase Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	1.38	9002-93-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	BNP Solid Phase	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
		BNP Lite Reagent	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	BNP Solid Phase	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		BNP Lite Reagent	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	BNP Solid Phase	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		BNP Lite Reagent	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	BNP Solid Phase	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by

Section 4. First aid measures

		medical personnel. Get medical attention if symptoms occur.
	BNP Lite Reagent	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Inhalation	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Skin contact	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Ingestion	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	BNP Solid Phase	No specific data.
		BNP Lite Reagent	No specific data.
Inhalation	:	BNP Solid Phase	No specific data.
		BNP Lite Reagent	No specific data.
Skin contact	:	BNP Solid Phase	No specific data.
		BNP Lite Reagent	No specific data.
Ingestion	:	BNP Solid Phase	No specific data.
		BNP Lite Reagent	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Physical state	:	BNP Solid Phase	Liquid.
		BNP Lite Reagent	Liquid.
Color	:	BNP Solid Phase	Colorless to light yellow.
		BNP Lite Reagent	Colorless to light yellow.
Odor	:	BNP Solid Phase	Odorless.
		BNP Lite Reagent	Odorless.
pH	:	BNP Solid Phase	7.35 to 7.45
		BNP Lite Reagent	7.35 to 7.45
Flash point	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.
Flammability (solid, gas)	:	BNP Solid Phase	Not relevant/applicable due to nature of the product.
		BNP Lite Reagent	Not relevant/applicable due to nature of the product.
Relative density	:	BNP Solid Phase	Not relevant/applicable due to nature of the product.
		BNP Lite Reagent	Not relevant/applicable due to nature of the product.

Section 9. Physical and chemical properties

Solubility in water : BNP Solid Phase — Not relevant/applicable due to nature of the product.
BNP Lite Reagent — Not relevant/applicable due to nature of the product.

Partition coefficient: n-octanol/water : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Auto-ignition temperature : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Viscosity : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Aerosol product

Type of aerosol : BNP Solid Phase — Not applicable.
BNP Lite Reagent — Not applicable.

Section 10. Stability and reactivity

Reactivity : BNP Solid Phase — No specific test data related to reactivity available for this product or its ingredients.
BNP Lite Reagent — No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : BNP Solid Phase — The product is stable.
BNP Lite Reagent — The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
BNP Solid Phase					
Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl) phenyl]-ω-hydroxy-	Eyes - Moderate irritant	Rabbit	-	24 hours 10 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-

Conclusion/Summary

Skin : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Eyes : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Respiratory : BNP Solid Phase — Not available.
BNP Lite Reagent — Not available.

Section 11. Toxicological information

Sensitization

Not available.

Conclusion/Summary

Skin	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.
Respiratory	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Mutagenicity

Not available.

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Carcinogenicity

Not available.

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Reproductive toxicity

Not available.

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Teratogenicity

Not available.

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Potential acute health effects

Eye contact	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Inhalation	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Skin contact	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.
Ingestion	:	BNP Solid Phase	No known significant effects or critical hazards.
		BNP Lite Reagent	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

Eye contact	:	BNP Solid Phase BNP Lite Reagent	No specific data. No specific data.
Inhalation	:	BNP Solid Phase BNP Lite Reagent	No specific data. No specific data.
Skin contact	:	BNP Solid Phase BNP Lite Reagent	No specific data. No specific data.
Ingestion	:	BNP Solid Phase BNP Lite Reagent	No specific data. No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.
Potential delayed effects	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.

Long term exposure

Potential immediate effects	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.
Potential delayed effects	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	:	Not available. Not available.	BNP Solid Phase BNP Lite Reagent
General	:	No known significant effects or critical hazards.	
Carcinogenicity	:	No known significant effects or critical hazards.	
Mutagenicity	:	No known significant effects or critical hazards.	
Teratogenicity	:	No known significant effects or critical hazards.	
Developmental effects	:	No known significant effects or critical hazards.	
Fertility effects	:	No known significant effects or critical hazards.	

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
BNP Solid Phase Oral	36231.9 mg/kg

Interactive effects	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.
Other information	:	BNP Solid Phase BNP Lite Reagent	Not available. Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
BNP Solid Phase Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	Acute LC50 5.85 mg/l Fresh water	Crustaceans - Ceriodaphnia rigaudi - Neonate	48 hours
	Acute LC50 11.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 6000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Section 12. Ecological information

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Persistence and degradability

Conclusion/Summary	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC})	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.
Mobility	:	BNP Solid Phase	Not available.
		BNP Lite Reagent	Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

DOT Classification

UN number	BNP Solid Phase	Not regulated.
	BNP Lite Reagent	Not regulated.
UN proper shipping name	BNP Solid Phase	-
	BNP Lite Reagent	-
Transport hazard class(es)	BNP Solid Phase	-
	BNP Lite Reagent	-
Packing group	BNP Solid Phase	-
	BNP Lite Reagent	-
Environmental hazards	BNP Solid Phase	No.
	BNP Lite Reagent	No.
Additional information	BNP Solid Phase	-
	BNP Lite Reagent	-

TDG Classification

UN number	BNP Solid Phase	Not regulated.
	BNP Lite Reagent	Not regulated.
UN proper shipping name	BNP Solid Phase	-
	BNP Lite Reagent	-

Section 14. Transport information

Transport hazard class(es)	BNP Solid Phase	-
	BNP Lite Reagent	-
Packing group	BNP Solid Phase	-
	BNP Lite Reagent	-
Environmental hazards	BNP Solid Phase	No.
	BNP Lite Reagent	No.
Additional information	BNP Solid Phase	-
	BNP Lite Reagent	-

ADR/RID

UN number	BNP Solid Phase	Not regulated.
	BNP Lite Reagent	Not regulated.
UN proper shipping name	BNP Solid Phase	-
	BNP Lite Reagent	-
Transport hazard class(es)	BNP Solid Phase	-
	BNP Lite Reagent	-
Packing group	BNP Solid Phase	-
	BNP Lite Reagent	-
Environmental hazards	BNP Solid Phase	No.
	BNP Lite Reagent	No.
Additional information	BNP Solid Phase	-
	BNP Lite Reagent	-

IMDG

UN number	BNP Solid Phase	Not regulated.
	BNP Lite Reagent	Not regulated.
UN proper shipping name	BNP Solid Phase	-
	BNP Lite Reagent	-
Transport hazard class(es)	BNP Solid Phase	-
	BNP Lite Reagent	-
Packing group	BNP Solid Phase	-
	BNP Lite Reagent	-
Environmental hazards	BNP Solid Phase	No.
	BNP Lite Reagent	No.
Additional information	BNP Solid Phase	-
	BNP Lite Reagent	-

IATA

UN number	BNP Solid Phase	Not regulated.
	BNP Lite Reagent	Not regulated.

Section 14. Transport information

UN proper shipping name	BNP Solid Phase	-
	BNP Lite Reagent	-
Transport hazard class(es)	BNP Solid Phase	-
	BNP Lite Reagent	-
Packing group	BNP Solid Phase	-
	BNP Lite Reagent	-
Environmental hazards	BNP Solid Phase	No.
	BNP Lite Reagent	No.
Additional information	BNP Solid Phase	-
	BNP Lite Reagent	-

Special precautions for user :

BNP Solid Phase

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

BNP Lite Reagent

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Proper shipping name :

Ship type :

Pollution category :

Section 15. Regulatory information

U.S. Federal regulations :

TSCA 4(a) proposed test rules: glycine

TSCA 8(a) PAIR: Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: disodium hydrogenorthophosphate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Section 15. Regulatory information

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
BNP Solid Phase Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-	1.38	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

International regulations

Chemical Weapons Convention List Schedule I Chemicals	:	BNP Solid Phase BNP Lite Reagent	Not listed Not listed
Chemical Weapons Convention List Schedule II Chemicals	:	BNP Solid Phase BNP Lite Reagent	Not listed Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	BNP Solid Phase BNP Lite Reagent	Not listed Not listed

Section 16. Other information

History

Date of issue/Date of revision : 5/18/2017

Version : 1.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.