## SAFETY DATA SHEET



#### CosMx Nuclear Stain Solution

## **Section 1. Identification**

**Product identifier** : CosMx Nuclear Stain Solution

**Product code** : Not available. Other means of : Not available. identification

**Product type** : Liquid.

Recommended use of the chemical and restrictions on use

**Product use** : For research use only. Not for use in diagnostic procedures.

Area of application : Professional applications.

Restrictions on use Reason This product is not intended for use in humans or animals.

Supplier's details : NanoString Technologies, Inc.

> 530 Fairview Avenue North, Suite 2000, Seattle, WA 98109

Telephone: 206-378-NANO (6266)

www.nanostring.com

e-mail address of person

responsible for this SDS

**Emergency telephone** number (with hours of

operation)

: operations@nanostring.com

: 206-378-6266 (24/7)

## Section 2. Hazards identification

Classification of the substance or mixture : Not classified.

**GHS** label elements

Signal word : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements** 

**Prevention** : Not applicable. Response : Not applicable. **Storage** : Not applicable. **Disposal** : Not applicable.

Other hazards which do not : None known.

result in classification

Date of issue/Date of revision Date of previous issue Version :1 : 2022/08/02 : No previous validation 1/9

## Section 3. Composition/information on ingredients

Substance/mixture
Other means of identification

: Not available.

: Mixture

#### **CAS** number/other identifiers

**CAS number** : Not applicable.

EC number : Mixture.

There are no 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**: 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 : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical attention if symptoms occur.

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. 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
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

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

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

**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)

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 2/9

## Section 5. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media

: Do not use water jet.

## Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: No specific data.

Thermal decomposition can lead to release of irritating gases and vapors. carbon 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.

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 3/9

## Section 7. Handling and storage

#### Precautions for safe handling

Protective measures

Advice on general occupational hygiene

- : Put on appropriate personal protective equipment (see Section 8).
- : 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. Keep container tightly closed and store at recommended temperature. 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

#### **Control parameters**

#### Occupational exposure limits

No exposure limit value known.

Appropriate engineering controls

**Environmental exposure** controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- : 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.

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 4/9

## Section 8. Exposure controls/personal protection

**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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### **Appearance**

Physical state : Liquid.

Color : Clear.

Odor : Odorless.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range

Flash point : Not available.
Evaporation rate : Not available.
Flammability : Not available.
Lower and upper explosion : Not available.

limit/flammability limit

Vapor pressure

	Vapor Pressure at 20°C			Vapor pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Component H	23.8	3.2		92.258	12.3	

Relative vapor density : Not available.
Relative density : Not available.

Solubility(ies) : Media

Media	Result
cold water	Easily soluble
hot water	Easily soluble

Miscible with water : Yes.

Partition coefficient: n- : Not applicable.

octanol/water

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431)

Particle characteristics

Median particle size : Not applicable.

Other information

**Physical/chemical properties** 

comments

: No additional information.

: Not available.

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 5/9

CosMx Nuclear Stain Solution

## Section 10. Stability and reactivity

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

Possibility of hazardous

reactions

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

occur.

Conditions to avoid : No specific data.

**Incompatible materials**: Strong oxidizer.

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** 

**Conclusion/Summary**: Not available.

Irritation/Corrosion

**Conclusion/Summary** 

Skin: Not available.Eyes: Not available.Respiratory: Not available.

**Sensitization** 

**Conclusion/Summary** 

Skin : Not available.

Respiratory : Not available.

**Mutagenicity** 

**Conclusion/Summary**: Not available.

**Carcinogenicity** 

**Conclusion/Summary**: Not available.

Reproductive toxicity

**Conclusion/Summary**: Not available.

**Teratogenicity** 

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

**Aspiration hazard** 

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 6/9

## **Section 11. Toxicological information**

Not available.

**Information on the likely** : Not available.

routes of exposure

#### Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

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

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

**Long term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

#### Potential chronic health effects

General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Reproductive toxicity : No known significant effects or critical hazards.

#### **Numerical measures of toxicity**

#### **Acute toxicity estimates**

Not available.

## **Section 12. Ecological information**

**Toxicity** 

Conclusion/Summary : Not available.

Persistence and degradability

**Conclusion/Summary**: Not available.

Date of issue/Date of revision: 2022/08/02Date of previous issue: No previous validationVersion: 17/9

CosMx Nuclear Stain Solution

## Section 12. Ecological information

#### **Bioaccumulative potential**

Not available.

**Mobility in soil** 

Soil/water partition coefficient (Koc)

: 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

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Special precautions for user : 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 : Not available.

to IMO instruments

Date of issue/Date of revision : 2022/08/02 Date of previous issue Version: 1 8/9 : No previous validation

## Section 15. Regulatory information

#### **International regulations**

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

**Montreal Protocol** 

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals** 

Not listed.

#### Section 16. Other information

**History** 

Date of issue/Date of : 2022/08/02

revision

Date of previous issue : No previous validation

Version :

Prepared by : Sphera Solutions

**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

N/A = Not available

MARPOL = International Convention for the Prevention of Pollution From Ships,

: GHS - Globally Harmonized System of Classification and Labeling of Chemicals

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

#### Procedure used to derive the classification

Classification	Justification
Not classified.	

International transport regulations

Indicates information that has changed from previously issued version.

#### Notice to reader

References

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 2022/08/02 Date of previous issue : No previous validation Version : 1 9/9