MATERIAL SAFETY DATA SHEET (MSDS)

Version 1.0
Revision Date 09/08/2011

SECTION 1 COMPANY AND PRODUCT IDENTIFICATION

Product Name nUView Protein Marker - Wide Range, mol wt 6,500 – 200,000 Da

Brand NuSep

Supplier

NuSep Inc.
8400 Baltimore Ave, STE302
College Park MD 20740
USA

Phone: +1 877 592 1060
Fax: +1 706 433 4233
Email: sales@nusep.com
Internet: www.nusep.com

Product Use nUView Protein Markers are designed for use with nUView precast gels. nUView Protein Markers are composed of proteins with a wide range of molecular weights common to most proteins or their subunits. The wide, high and low range markers are lyophilized with sample buffer so that they are ready-to-use after reconstitution with deionized water. The markers are formulated to yield a distribution of well-defined bands of approximately equal intensity after electrophoresis and UV imaging.

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Toxic by ingestion, Toxic by skin absorption, Skin and respiratory sensitizer, Irritant

Target Organs

Lungs, Central nervous system

GHS Classification

Skin irritation (Category 3)
Respiratory sensitization (Category 1)
Skin sensitization (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal Word Danger

Hazard statement(s)

H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)

P261	Avoid breathing dust/ fume/gas/mist/vapours/spray.
P280	Wear protective gloves.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0

NFPA Rating

Health hazard:	2
Fire:	0
Reactivity Hazard:	0

Potential Health Effects

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

Skin	Toxic if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.

SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS

CAS-No.	EC-No.	Index-No.	Concentration
(R*,R*)-1,4-Dimercaptobutane-2,3-diol			
3483-12-3	222-468-7	-	<= 1 %
Hexadecan-1-ol			
36653-82-4	253-149-0	-	<= 1 %
Sodium dodecyl sulphate			
151-21-3	205-788-1	-	<= 1 %
Sucrose			
57-50-1	200-334-9	-	<= 1 %
Tris (hydroxymethyl) aminomethane			
77-86-1	201-064-4	-	<= 1 %
Trypsin inhibitor			
9035-81-8	232-906-9	-	8 %
Trypsin inhibitor, pancreatic basic			
9087-70-1	232-994-9	-	8 %
Serum albumin			
9048-46-8	232-936-2	-	8 %
Ovalbumin			
9006-59-1	232-692-7	-	8 %
Sodium α-(3,5-dibromo-4-oxo-2,5-cyclohexadienylidene)-α-(3,5-dibromo-4-hydroxyphenyl)toluenesulphonate			
62625-28-9	263-653-2	-	<= 1 %
Dehydratase, carbonate			
9001-03-0	232-576-6	-	8 %
Dehydrogenase, glutamate (nicotinamide adenine dinucleotide (phosphate))			
9029-12-3	232-848-4	-	8 %
Edetate disodium dihydrate			
6381-92-6	205-358-3	-	<= 1 %
Dehydrogenase, glyceraldehyde phosphate			
9001-50-7	232-609-4	-	8 %
Myosin			
no data available	-	-	8 %
α-Lactalbumin, from bovine source			
9051-29-0	-	-	8 %
Phosphorylase b			
9012-69-5	232-737-0	-	8 %
Trypsinogen, PMSF treated from bovinepancreas			
no data available	-	-	8 %
Galactosidase, β-			
9031-11-2	232-864-1	-	8 %

SECTION 4 FIRST AID MEASURES

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General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

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

In case of skin contact

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

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

SECTION 5 FIRE FIGHTING MEASURES

Conditions of flammability

Not flammable or combustible.

Suitable extinguishing media

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

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen bromide gas, Sodium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Do not let product enter drains.

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.

SECTION 7 HANDLING AND STORAGE

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.

Conditions for safe storage

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

Recommended storage temperature: 2 - 8 °C

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control Parameters	Basis
Sucrose	57-50-1	TWA	10 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Dental erosion Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.			
		TWA	15 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	15 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	5 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	15 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Personal Protective Equipment

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand 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.

Eye protection

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

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Solid
Colour	no data available

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available

Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

SECTION 10 STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

no data available

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Hydrogen bromide gas, Sodium oxides
Other decomposition products - no data available

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

no data available

Inhalation LC50

no data available

Dermal LD50

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

Eyes: no data available

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Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

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.

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.

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	Toxic if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: Not available

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

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Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

SECTION 13 DISPOSAL CONSIDERATIONS

Product

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.

Contaminated packaging

Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15 REGULATORY INFORMATION

OSHA Hazards

Target Organ Effect, Toxic by ingestion, Toxic by skin absorption, Skin and respiratory sensitizer, Irritant

SARA 302 Components

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

SARA 313 Components

SARA 313: 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 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Sucrose	57-50-1	1991-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Galactosidase, β-	9031-11-2	
Dehydrogenase, glutamate (nicotinamide adenine dinucleotide (phosphate))	9029-12-3	
Myosin	-	
Trypsinogen, PMSF treated from bovinepancreas	-	

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Trypsin inhibitor, pancreatic basic	9087-70-1	
Trypsin inhibitor	9035-81-8	
Phosphorylase b	9012-69-5	
Ovalbumin	9006-59-1	
Dehydrogenase, glyceraldehyde phosphate	9001-50-7	
Dehydratase, carbonate	9001-03-0	
Sucrose	57-50-1	1991-07-01
α-Lactalbumin, from bovine source	9051-29-0	
Serum albumin	9048-46-8	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Galactosidase, β-	9031-11-2	
Dehydrogenase, glutamate (nicotinamide adenine dinucleotide (phosphate))	9029-12-3	
Myosin	-	
Trypsinogen, PMSF treated from bovinepancreas	-	
Trypsin inhibitor, pancreatic basic	9087-70-1	
Trypsin inhibitor	9035-81-8	
Phosphorylase b	9012-69-5	
Ovalbumin	9006-59-1	
Dehydrogenase, glyceraldehyde phosphate	9001-50-7	
Dehydratase, carbonate	9001-03-0	
α-Lactalbumin, from bovine source	9051-29-0	
Serum albumin	9048-46-8	

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.

SECTION 16 OTHER INFORMATION

Label Text

Please read all labels carefully before using this product.

Preparation

This MSDS has been prepared according to international guidelines and is suitable for use in USA. This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace.

Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

MSDS prepared by NuSep.

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