

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. 340 Commerce Boulevard, Suite 101 BOGART GA 30622 USA | Phone: Fax: Email: Internet: | +1 877 592 1060 +1 877 283 3788 sales@nusep.com 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.

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Skin
Eyes
Ingestion

Toxic if absorbed through skin. Causes skin irritation.
Causes eye irritation.
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 (NO_x), 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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| | |
|--|-------------------|
| 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 (NO_x), 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 | <p>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.</p> <p>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.</p> <p>If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.</p> <p>MSDS prepared by NuSep.</p> |