

 Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910.1200. Standard must be consulted for specific requirements.	
IDENTITY (As Used on Label and List) Agarose	
Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.	
Section I	
Manufacturer's Name EDVOTEK, Inc. Address (Number, Street, City, State, Zip Code) 14676 Rothgeb Drive Rockville, MD 20850	Emergency Telephone Number (301) 251-5990 Telephone Number for Information (301) 251-5990 Date Prepared 8/25/97 Signature of Preparer (optional)
Section II - Hazardous Ingredients/Identify Information	
Hazardous Components (Specific Chemical Identity; Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (Optional)	
This product contains no hazardous materials as defined by the OSHA Hazard Communication Standard.	
CAS #9012-36-6	
Section III - Physical/Chemical Characteristics	
Boiling Point For 1% solution 194° F	Specific Gravity ($H_2O = 1$) No data
Vapor Pressure (mm Hg.) No data	Melting Point No data
Vapor Density (AIR = 1) No data	Evaporation Rate (Butyl Acetate = 1) No data
Solubility in Water Insoluble - cold	
Appearance and Odor White powder, no odor	
Section IV - Physical/Chemical Characteristics N.D. = No data	
Flash Point (Method Used) No data	Flammable Limits LEL N.D. UEL N.D.
Extinguishing Media Water spray, dry chemical, carbon dioxide, halon or standard foam	
Special Fire Fighting Procedures Possible fire hazard when exposed to heat or flame	
Unusual Fire and Explosion Hazards None	

Section V - Reactivity Data			
Stability	Unstable Stable	X	Conditions to Avoid None
Incompatibility No data available			
Hazardous Decomposition or Byproducts			
Hazardous Polymerization	May Occur Will Not Occur	X	Conditions to Avoid None
Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation?	Yes	Skin? Yes Ingestion? Yes
Health Hazards (Acute and Chronic)			
Inhalation: No data available		Ingestion: Large amounts may cause diarrhea	
Carcinogenicity: NTP?		IARC Monographs? OSHA Regulation?	
Signs and Symptoms of Exposure No data available			
Medical Conditions Generally Aggravated by Exposure No data available			
Emergency First Aid Procedures Treat symptomatically and supportively			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in case Material is Released for Spilled Sweep up and place in suitable container for disposal			
Waste Disposal Method Normal solid waste disposal			
Precautions to be Taken in Handling and Storing None			
Other Precautions None			
Section VIII - Control Measures			
Respiratory Protection (Specify Type) Chemical cartridge respirator with full facepiece.			
Ventilation	Local Exhaust	Special	Other
Protective Gloves Yes	Eye Protection		Splash proof goggles
Other Protective Clothing or Equipment Impervious clothing to prevent skin contact			
Work/Hygienic Practices None			

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IDENTITY (As Used on Label and List) 50x Electrophoresis Buffer	
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Section I	
Manufacturer's Name EDVOTEK, Inc. Address (Number, Street, City, State, Zip Code) 14676 Rothgeb Drive Rockville, MD 20850	Emergency Telephone Number (301) 251-5990 Telephone Number for Information (301) 251-5990 Date Prepared 09/15/97 Signature of Preparer (optional)
Section II - Hazardous Ingredients/Identify Information	
Hazardous Components (Specific Chemical Identity; Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (Optional)	
This product contains no hazardous materials as defined by the OSHA Hazard Communication Standard.	
Section III - Physical/Chemical Characteristics	
Boiling Point No data	Specific Gravity ($H_2O = 1$) No data
Vapor Pressure (mm Hg.) No data	Melting Point No data
Vapor Density (AIR = 1) No data	Evaporation Rate (Butyl Acetate = 1) No data
Solubility in Water Appreciable, (greater than 10%)	
Appearance and Odor Clear, liquid, slight vinegar odor	
Section IV - Physical/Chemical Characteristics N.D. = No data	
Flash Point (Method Used) No data	Flammable Limits LEL N.D. UEL N.D.
Extinguishing Media Use extinguishing media appropriate for surrounding fire.	
Special Fire Fighting Procedures Wear protective equipment and SCBA with full facepiece operated in positive pressure mode.	
Unusual Fire and Explosion Hazards None identified	

Section V - Reactivity Data			
Stability	Unstable Stable	X	Conditions to Avoid None
Incompatibility Strong oxidizing agents			
Hazardous Decomposition or Byproducts Carbon monoxide, Carbon dioxide			
Hazardous Polymerization	May Occur Will Not Occur	X	Conditions to Avoid None
Section VI - Health Hazard Data			
Route(s) of Entry:	Inhalation?	Yes	Skin? Yes Ingestion? Yes
Health Hazards (Acute and Chronic) None			
Carcinogenicity: None identified		NTP? IARC Monographs? OSHA Regulation?	
Signs and Symptoms of Exposure Irritation to upper respiratory tract, skin, eyes			
Medical Conditions Generally Aggravated by Exposure None			
Emergency First Aid Procedures Ingestion: If conscious, give large amounts of water Eyes: Flush with water Inhalation: Move to fresh air Skin: Wash with soap and water			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in case Material is Released for Spilled Wear suitable protective clothing. Mop up spill and rinse with water, or collect in absorbent material and dispose of the absorbent material.			
Waste Disposal Method Dispose in accordance with all applicable federal, state, and local environmental regulations.			
Precautions to be Taken in Handling and Storing Avoid eye and skin contact.			
Other Precautions None			
Section VIII - Control Measures			
Respiratory Protection (Specify Type)			
Ventilation	Local Exhaust	Yes	Special None Other None
Protective Gloves Yes	Eye Protection		Safety goggles
Other Protective Clothing or Equipment None			
Work/Hygienic Practices None			

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IDENTITY (As Used on Label and List) Practice Gel Loading Solution		Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.	
Section I Manufacturer's Name EDVOTEK, Inc. Address (Number, Street, City, State, Zip Code) 14676 Rothgeb Drive Rockville, MD 20850		Emergency Telephone Number (301) 251-5990 Telephone Number for information (301) 251-5990 Date Prepared 8/25/97 Signature of Preparer (optional)	
Section II - Hazardous Ingredients/Identify Information Hazardous Components (Specific Chemical Identity, Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (Optional) This product contains no hazardous materials as defined by the OSHA Hazard Communication Standard.			
Section III - Physical/Chemical Characteristics			
Boiling Point	No data	Specific Gravity ($H_2O = 1$)	No data
Vapor Pressure (mm Hg.)	No data	Melting Point	No data
Vapor Density (AIR = 1)	No data	Evaporation Rate (Butyl Acetate = 1)	No data
Solubility in Water Soluble			
Appearance and Odor Blue liquid, no odor			
Section IV - Physical/Chemical Characteristics			
Flash Point (Method Used)	No data	Flammable Limits	LEL: No data UEL: No data
Extinguishing Media Dry chemical, carbon dioxide, water spray or foam			
Special Fire Fighting Procedures Use agents suitable for type of surrounding fire. Keep upwind, avoid breathing hazardous sulfur oxides and bromides. Wear SCBA.			
Unusual Fire and Explosion Hazards Unknown			
Section V - Reactivity Data			
Stability	Unstable	Conditions to Avoid	
	Stable	None	
Incompatibility None			
Hazardous Decomposition or Byproducts Sulfur oxides, and bromides			
Hazardous Polymerization	May Occur	Conditions to Avoid	
	Will Not Occur	None	
Section VI - Health Hazard Data			
Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes			
Health Hazards (Acute and Chronic) Acute eye contact: May cause irritation. No data available for other routes.			
Cardiogenicity: No data available NTP? IARC Monographs? OSHA Regulation?			
Signs and Symptoms of Exposure May cause skin or eye irritation			
Medical Conditions Generally Aggravated by Exposure None reported			
Emergency First Aid Procedures Treat symptomatically and supportively. Rinse contacted area with copious amounts of water.			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in case Material is Released for Spilled Wear eye and skin protection and mop spill area. Rinse with water.			
Waste Disposal Method Observe all federal, state, and local regulations.			
Precautions to be Taken in Handling and Storing Avoid eye and skin contact.			
Other Precautions None			
Section VIII - Control Measures			
Respiratory Protection (Specify Type)			
Ventilation	Local Exhaust	Yes	Special None
	Mechanical (General)	Yes	Other None
Protective Gloves	Yes	Eye Protection	Splash proof goggles
Other Protective Clothing or Equipment None required			
Work/Hygienic Practices Avoid eye and skin contact			

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IDENTITY (As Used on Label and List) Protein Plus Stain		Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.	
Section I Manufacturer's Name EDVOTEK, Inc. Address (Number, Street, City, State, Zip Code) 14676 Rothgeb Drive Rockville, MD 20850		Emergency Telephone Number (301) 251-5990 Telephone Number for information (301) 251-5990 Date Prepared 05/22/98 Signature of Preparer (optional)	
Section II - Hazardous Ingredients/Identify Information Hazardous Components (Specific Chemical Identity, Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (Optional) Methanol (Methyl Alcohol) 200ppm 200ppm No data 90%-100% CH3OH			
Section III - Physical/Chemical Characteristics			
Boiling Point	65°C	Specific Gravity ($H_2O = 1$)	.79
Vapor Pressure (mm Hg.)	96mmHg	Melting Point	N/A
Vapor Density (AIR = 1)	1.11	Evaporation Rate (Butyl Acetate = 1)	4.6
Solubility in Water Complete (100%)			
Appearance and Odor Blue liquid/alcoholic, pungent odor			
Section IV - Physical/Chemical Characteristics			
Flash Point (Method Used)	(closed cup) 12°C	Flammable Limits	LEL: 6.0% UEL: 36%
Extinguishing Media Use alcohol foam, dry chemical or carbon dioxide. (Water may be ineffective)			
Special Fire Fighting Procedures Wear SCBA with full facepiece operated in positive pressure mode. Move containers from fire area.			
Unusual Fire and Explosion Hazards Vapors may flow along surfaces to distant ignition sources. Close containers exposed to heat may explode. Contact w/ strong oxidizers may cause fire.			
Section V - Reactivity Data			
Stability	Unstable	Conditions to Avoid	
	Stable	None	
Incompatibility Strong oxidizing agents			
Hazardous Decomposition or Byproducts Carbon monoxide, Carbon dioxide, Sulfur oxides			
Hazardous Polymerization	May Occur	Conditions to Avoid	
	Will Not Occur	None	
Section VI - Health Hazard Data			
Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes			
Health Hazards (Acute and Chronic) Irritating to eyes, skin, mucous membranes and upper respiratory tract. Chronic exposure may cause lung damage or pulmonary sensitization			
Cardiogenicity: No data NTP? IARC Monographs? OSHA Regulation? No data			
Signs and Symptoms of Exposure Respiratory tract: burning sensation. Coughing, wheezing, laryngitis, shortness of breath, headache			
Medical Conditions Generally Aggravated by Exposure No data			
Emergency First Aid Procedures Flush skin/eyes w/ large amounts of water. If inhaled, remove to fresh air. Ingestion: give large amounts of water or milk. Do not induce vomiting.			
Section VII - Precautions for Safe Handling and Use			
Steps to be Taken in case Material is Released for Spilled Evacuate area. Wear SCBA, rubber boots and rubber gloves. Mop up w/ absorptive material and burn in chemical incinerator equipped w/ an afterburner and scrubber.			
Waste Disposal Method Observe all federal, state, and local laws.			
Precautions to be Taken in Handling and Storing Wear protective gear. Avoid contact/inhalation.			
Other Precautions Strong sensitizer			
Section VIII - Control Measures			
Respiratory Protection (Specify Type) NIOSH/MSHA approved respirator			
Ventilation	Local Exhaust	No	Special Chem fume hood
	Mechanical (General)	No	Other None
Protective Gloves	Rubber	Eye Protection	Splash-proof goggles
Other Protective Clothing or Equipment Rubber boots			
Work/Hygienic Practices Avoid prolonged or repeated exposure			



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EDVO-Kit #

Electrophoretic Properties of Native Proteins

Storage:

Store entire experiment in the refrigerator.

Experiment Objective:

To develop a general understanding of the structure and electrophoretic migration of native proteins.

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