Material Safety Data Sheet

MSDS/SDS Number: 00001033MSDS

Latest Revision Date: September 10, 2010

Revision: A

SECTION 1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Antibodies in BSA, NaCl, NaN_3, Na_2HPO_4 and Proprietary Ingredients.

Catalogue Number(s): See Section 16.

Chemical Name: Aqueous solution containing [Albumins, Blood Serum], Sodium Chloride, Disodium Hydrogenorthophosphate, Sodium Azide, and Proprietary Ingredients.

Synonyms: None.

Intended Product Use: Intended for research use only.

Manufacturer/Distributor:	Millipore Corporation (Corporate Headquarters)	Millipore S.A.S. (European Headquarters)
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SECTION 2 HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

Symbol:		
No Symbol	**Hazard Category:**	*None Applicable.*
	Signal Word:	*None Applicable.*
	Hazard Statement:	*None Applicable.*

GHS Precautionary Statements:

Prevention: P281: Use personal protective equipment as required.

Response: P308+P313: If exposed or concerned: Get medical advice/attention.

Storage: P403+P233: Store in a well ventilated place. Keep container tightly closed.

Disposal: P501: Dispose of content/container in accordance with local

regulations.

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH):

Symbol: *No Symbol*

Symbol Letter: *None Applicable.*

Hazard: *None Applicable.*

Risk Phrase: *None Applicable.*

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Identification of Dangerous Components: This product contains the substances listed below, which are defined as dangerous substances or hazardous chemicals as defined in European Community Directives 67/548/EEC or 1999/45/EC, and Hazard Communication Standard 29 CFR 1910.1200.

Dangerous Component	EINECS or ELINCS No.	CAS No.	Content (weight percent)	EU Hazard Symbol Letters*†	R Phrases** †
Albumins, Blood Serum:	232-936-2	9048-46-8	< 2 %	N/A	N/A
Sodium Chloride:	231-598-3	7647-14-5	< 1 %	N/A	N/A
Disodium Hydrogenorthophosphate:	231-449-2	7558-79-4	< 1 %	N/A	N/A
Sodium Azide:	247-852-1	26628-22-8	≤ 0.1 %	T+ N	R28 R32 R50/53

Identification of Components Not Classified as Dangerous: This product contains the substances listed below, which are not defined as dangerous substances or hazardous chemicals as defined in European Community Directives 67/548/EEC or 1999/45/EC, and Hazard Communication Standard 29 CFR 1910.1200.

Non-Dangerous Component	EINECS or ELINCS No.	CAS No.	Content (weight percent)	EU Hazard Symbol Letters	R Phrases
Proprietary Ingredients:	Not Listed	Not Listed	Proprietary	N/A	N/A
Water:	231-791-2	7732-18-5	> 96 %	N/A	N/A

* Symbol letters and categories of danger: **T+** = Very toxic, **T** = Toxic, **C** = Corrosive, **Xn** = Harmful, **Xi** = Irritant, **E** = Explosive, **F+** = Extremely flammable, **F** = Highly flammable, **N** = Dangerous for the environment, **O** = Oxidising.

** The full text of each R phrase is listed in Section 15.

† Symbols letters and R Phrases are assigned to each dangerous component for the highest concentration range as defined in 67/548/EEC and 1999/45/EC.

SECTION 4 FIRST AID MEASURES

	Treatment Measures:	Symptoms of Exposure:
Contact with Eyes:	If the product contacts the eyes, promptly wash (irrigate) the eyes with large amounts of tepid water for at least 15 minutes, occasionally lifting the lower and upper lids. Seek medical attention immediately.	Possible redness, irritation, swelling, watering of the eyes, and blurred vision.

Ingestion:	Seek medical attention immediately. Never give an unconscious person anything by mouth.	Possible gastrointestinal irritation, nausea, vomiting, and diarrhea.
Inhalation:	If a person inhales large amounts of the product move the exposed person to fresh air at once. If breathing is difficult or stops seek immediate medical attention.	Inhalation may produce irritation of the mucous membranes of the respiratory tract.
Skin Contact:	If the product contacts the skin, immediately flush the contaminated skin with mild soap and water. If this chemical penetrates clothing immediately remove the clothing and flush the skin with water. Seek medical attention immediately.	Possible skin irritation.

SECTION 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media appropriate for the surrounding fire. This product is compatible with commercially available extinguishing media.

Special Protective Equipment for Firefighters: This product does not require the use of any additional fire fighting equipment beyond what is appropriate to the surrounding fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear chemical resistant boots, clothing, eye protection, and gloves to prevent skin contact (See Section 8).

Small Spills: Identify the spilled material(s). Barricade the spill area and notify others in the surrounding areas. Control all sources of ignition if the substance is flammable. Don the appropriate personal protective equipment (See section 8). Control the movement of the spilled product (into drains, soil, across floors etc.) with absorbent spill materials. Collect contaminated spill material and place in container meeting appropriate U.N. packaging requirements. Decontaminate used equipment and affected spill area appropriately.

Large Spills: In addition to small spill precautions, determine personnel evacuation distances. Notify appropriate authorities if necessary.

Environmental Precautions: Collect and dispose of contaminated materials according to international, federal, state and local regulations. Keep away from surface and ground water, drains, and soil.

SECTION 7 HANDLING AND STORAGE

Handling: Seek appropriate training to safely handle this product under normal conditions. Use the recommended personal protective equipment (See Section 8) to prevent chemical exposures. Wash hands with soap and water before eating, drinking, or touching common items (phone, computer, etc.) to prevent cross contamination. Use this product with adequate ventilation. See product technical data sheet for details.

Storage: See product technical data sheet for details.

Specific use: See product technical data sheet for details.

SECTION 8 EXPOSURE CONTROL AND PERSONAL PROTECTION

Exposure Limit Values:	OSHA PEL	NIOSH REL	ACGIH TLV	Other
Albumins, Blood Serum:	Not Listed	Not Listed	Not Listed	None
Sodium Chloride:	Not Listed	Not Listed	Not Listed	See Below
Russia:	OEL-STEL 5 mg/m^3, JUN2003			
Disodium Hydrogenorthophosphate:	Not Listed	Not Listed	Not Listed	None
Sodium Azide:	Not Listed	Ceiling 0.3 mg/m^3 (Skin)	Ceiling 0.29 mg/m^3; A4 Not classifiable as a human carcinogen.	See Below
Australia:	TWA ppm (0.3 mg/m^3), JAN1993			
Belgium:	STEL ppm (0.3 mg/m^3), JAN1993			
Denmark:	TWA 0.1 mg/m^3, OCT 2002			
Finland:	TWA 0.1 ppm (0.3 mg/m^3), STEL 0.3 ppm (0.9 mg/m^3), JAN1999			
France:	VME 0.1 mg/m^3, VLE 0.3 mg/m^3, Skin, FEB2006			
Germany:	MAK 0.2 mg/m^3 (inhalable), 2005			
The Netherlands:	MAC-TGG 0.1 mg/m^3, Skin, 2003			
New Zealand:	Ceiling Concentration 0.11 ppm (0.29 mg/m^3), JAN2002			
Sweden:	TWA 0.1 mg/m^3; STEL 0.3 mg/m^3, Skin, JUN2005			
Switzerland:	MAK- week 0.2 mg/m^3,KZG- week 0.4e mg/m^3, DEC2006			
United Kingdom:	TWA 0.1 mg/m^3; STEL 0.3 mg/m^3 (skin), 2005			

	Normal Handling Conditions	**Emergency Response Conditions**
Engineering Controls:	General room ventilation is adequate for the use of this product.	Provide negative pressure ventilation.
Respiratory Protection	Use appropriate respiratory protection.	Use appropriate respiratory protection.
Eye Protection:	Safety glasses with side shields.	Chemical splash goggles or other face protection as appropriate.
Skin Protection:	Laboratory coat, adequate chemical-resistant gloves.	Chemically resistant boots, clothes, and impermeable gloves as appropriate.
Environmental Exposure Controls:	Not available.	Not available.

Other Equipment: Safety shower, eyewash stations, and hand washing equipment should be available close to the work area as needed.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colorless Liquid	
Odor:	None	
Odor Threshold:	Not Available	
pH:	Not Available	
Melting Point/Freezing Point:	Essentially that of Water	
Initial Boiling Point and Boiling Range:	Essentially that of Water	
Flash Point:	Not Available	
Evaporation Rate, 20 ºC:	Not Available	
Flammability (Solid/Gas):	Not Available	
Explosive Limits:	LEL: Not Available	UEL: Not Available
Vapor Pressure:	Not Available	
Vapor Density, 20 ºC:	Not Available	
Relative Density (Water = 1.0):	Essentially that of Water	
Solubility:	Soluble	
Partition Coefficient (n-octanol/water):	Not Available	
Auto Ignition Temperature (ASTM D1929):	Not Available	
Decomposition Temperature:	Not Available	
Oxidizing Properties:	None	
Viscosity, Centipoise:	Not Available	

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability:	Product is stable under normal operating conditions and use as described in the product technical data sheet.
Conditions to Avoid:	See product technical data sheet for details.
Incompatible Materials to Avoid:	Strong acids or bases, strong oxidizers, and extreme temperatures.
Hazardous Decomposition Products:	Heating to decomposition temperature may produce carbon monoxide, carbon dioxide, nitrogen oxides, sodium oxide fumes, and nitrogen

SECTION 11 TOXICOLOGICAL INFORMATION

Toxicology Data: Toxicological information for this product as a whole does not exist, below is data for the individual components.

Albumins, Blood Serum: RTECS #AY9296000
Sodium Chloride: RTECS #VZ4725000
Disodium Hydrogenorthophosphate: RTECS #WC4500000
Sodium Azide: RTECS #VY8050000

	Toxicity Test	Exposure Route	Dose	Observed Effect
Acute Toxicity:				
Albumins, Blood Serum:	LD (Rat)	Intravenous	> 12,500 mg/kg	Behavioral: Somnolence (General Depressed Activity); Lungs, Thorax, or Respiration: Respiratory Stimulation.[1]
Sodium Chloride:	LD_{50} (Rat)	Oral	3,000 mg/kg	N/A[2]
Disodium Hydrogenorthophosphate:	LD_{50} (Rat)	Oral	17,000 mg/kg	N/A[3]
Sodium Azide:	LD_{50} (Rat)	Oral	27 mg/kg	Eye: Other eye effects Behavioral: Convulsions or effect on seizure threshold Lung, Thorax, or Respiration: Structural or functional change in trachea or bronchi[4]
	LC_{50} (Rat)	Inhalation	37 mg/m^3	N/A[4]
	LD_{50} (Rat)	Skin	50 mg/kg	N/A[4]
Skin Corrosion/Irritation:				
Sodium Chloride:	Skin Irritation (Rabbit)	Skin	500 mg/24H	Mild[2]
Disodium Hydrogenorthophosphate:	Skin Irritation (Rabbit)	Skin	500 mg/24 hour	Mild[3]
Serious Eye Damage/Eye Irritation:				
Sodium Chloride:	Eye Irritation (Rabbit)	Eye	100 mg/24H	Moderate[2]
Disodium Hydrogenorthophosphate:	Skin Irritation (Rabbit)	Skin	500 mg/24 hour	Mild[3]
Respiratory or Skin Sensitization:	Not Available			
Mutagenicity:	Not Available			
Reproductive Toxicity:	Not Available			
STOST-Single Exposure:	Not Available			
STOST-Repeated Exposure:	Not Available			
Aspiration Hazard:	Not Available			

Carcinogenicity: Carcinogenetic information for this product as a whole does not exist, below is data for the individual components.

Research Agency:	OSHA:	NTP:	IARC:
Albumins, Blood Serum:	Not Listed	Not Listed	Not Listed
Sodium Chloride:	Not Listed	Not Listed	Not Listed
Disodium Hydrogenorthophosphate:	Not Listed	Not Listed	Not Listed
Sodium Azide:	Not Listed	Not Listed	Not Listed

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Ecotoxicity information for this product as a whole does not exist, below is data for the individual components.

Albumins, Blood Serum: Not Available.

Sodium Chloride: LC_{50} Carassius Auratus 24 Hours 9,800,000 ug/L[5]

LC_{50} Carassius Auratus 48 Hours 7,200,000 ug/L[5]

LC_{50} Carassius Auratus 96 Hours 7,050,000 ug/L[5]

Disodium Hydrogenorthophosphate: LC_{50} Daphnia Magna 25 Hours 1,154,000 ug/L[6]

LC_{50} Daphnia Magna 50 Hours 1,089,000 ug/L[6]

Sodium Azide: LC_{50} Lepomis Macrochirus 24 Hours 1,800 ug/L[7]

LC_{50} Lepomis Macrochirus 48 Hours 800.0 ug/L[7]

LC_{50} Lepomis Macrochirus 96 Hours 680.0 ug/L[7]

Mobility:

Sodium Azide: Aquatic Fate: Photolysis of sodium azide may result in metal nitrides initially, with the eventual formation of the free metal and nitrogen gas.[8]

Persistence and Degradation:

Sodium Azide: The dissipation of azides in soil is not by microbial action but is strictly a chemical process accelerated by acidity and elevated temperatures. Sodium azide dissipates rapidly in solids by oxidation or by reations of hydrazoic acid with soil organic acids to form azides of these acids which decompose by the curtis rearrangement.[8]

Bio Accumulative Potential: Not Available.

Results of PBT Assessment: Not Available.

Other adverse effects: None Known.

SECTION 13 DISPOSAL INFORMATION

Substance: Dispose of unused contents in accordance with international, federal, state, and local regulations.

Contaminated Packaging: Dispose of container in accordance with international, federal, state and local requirements.

SECTION 14 TRANSPORTATION INFORMATION

UN Number: Not Listed.

Class: Not Listed.

Proper Shipping Name: Not Listed.

Packing Group: Not Listed.

Marine Pollutant: Not Listed.

Other Applicable Information: None.

SECTION 15 REGULATORY INFORMATION

Australia:	Hazchem Code:	Not Listed.
	Poisons Schedule Number:	Not Listed.
California:	Proposition 65 Listed:	Not Listed.
Canada:	WHMIS:	Not Listed.
European Union:	REACH:	Chemical Safety Assessment for the substance or substances in the preparation not required.
	Substances of Very High Concern (SVHC) - January 13, 2010:	This product does not contain SVHC's in concentrations above 0.1% weight/weight.
	Category of Danger:	T+: Very Toxic. N: Dangerous for the Environment.
	Risk Phrases:	R28: Very toxic if swallowed. R32: Contact with acids liberates very toxic gas. R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	Safety Phrases:	S7/9: Keep container tightly closed and in a well-ventilated place. S20/21: When using do not eat, drink or smoke. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S27/28: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and tepid water. S29/35: Do not empty into drains; dispose of this material and its container in a safe way. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately.

	OECD/High Production Volume (HPV) Chemicals:	Sodium Chloride, Disodium Hydrogenorthophosphate, and Water.
	RoHS:	This product does not contain RoHS listed substances in concentrations above the established thresholds.
Japan:	Poisonous and Deleterious Substances Control Law:	Sodium Azide: Poisonous Substance.

SECTION 16 ADDITIONAL INFORMATION

Product Number:	**Product Name:**
3301	LIGHT DIAGNOSTICS™ Coxsackievirus A9 Reagent, ~25 tests, included in kit #3350
3302	LIGHT DIAGNOSTICS™ Coxsackievirus A24 Reagent, ~25 tests, included in kit #3350
3303	LIGHT DIAGNOSTICS™ Coxsackievirus B Blend Reagent, ~50 tests, included in kit #3350 & #3365
3304	LIGHT DIAGNOSTICS™ Coxsackievirus B1 Reagent, ~25 tests, included in kit #3350
3305	LIGHT DIAGNOSTICS™ Coxsackievirus B2 Reagent, ~25 tests, included in kit #3350
3306	LIGHT DIAGNOSTICS™ Coxsackievirus B3 Reagent, ~25 tests, included in kit #3350
3307	LIGHT DIAGNOSTICS™ Coxsackievirus B4 Reagent, ~25 tests, included in kit #3350
3308	LIGHT DIAGNOSTICS™ Coxsackievirus B5 Reagent, ~25 tests, included in kit #3350
3309	LIGHT DIAGNOSTICS™ Coxsackievirus B6 Reagent, ~25 tests, included in kit #3350
3311	LIGHT DIAGNOSTICS™ Echovirus Blend Reagent, ~50 tests, included in kit #3340 & #3365
3321	LIGHT DIAGNOSTICS™ Enterovirus 70 and 71/Coxsackie A16 Blend Reagent, ~50 tests, included in kit #3345 & #3365
5028	LIGHT DIAGNOSTICS™ Mumps Antibody Reagent, ~50 tests, included in kit #3140
5030	LIGHT DIAGNOSTICS™ Measles Antibody IFA Reagent, ~50 tests, included in kit #3187
3336	LIGHT DIAGNOSTICS™ Poliovirus Blend Reagent, ~50 tests, included in kit #3355 & #3365
3360	LIGHT DIAGNOSTICS™ Pan-Enterovirus Reagent (Blend), ~125 tests, included in kit #3365
5008	LIGHT DIAGNOSTICS™ Goat Anti-Mouse IgG Antibody FITC Reagent, ~250 tests, F(ab)'2 fragment
5014	LIGHT DIAGNOSTICS™ Normal Mouse Antibody
5034	Parainfluenza 4 Antibody FITC Reagent
5091	hMPV Reagent
5091ASR	hMPV DFA Reagent
5091RU0	Human Metapneumovirus DFA Reagent, RUO

5094	LIGHT DIAGNOSTICS™ VZV Antibody FITC Reagent, ~125 tests, included in kit #3430
5008-BK	IGG, GT X MS, FITC

Component of Kit Number:	**Product Name:**
3105	LIGHT DIAGNOSTICS™ Respiratory Panel I Viral Screening and Identification IFA
3108	RESP VIRAL SCREEN, IFA KIT-10ML
3124	Human Meta Pneumovirus (hMPV) DFA
3140	LIGHT DIAGNOSTICS™ Mumps - IFA Kit, ~50 tests
3187	LIGHT DIAGNOSTICS™ Measles - IFA Kit, ~50 tests
3340	LIGHT DIAGNOSTICS™ Echovirus Antibody Set (Echovirus 4, 6, 9, 11, 30, Blend)
3345	LIGHT DIAGNOSTICS™ Enterovirus Antibody Set (Enterovirus 70, 71, and Blend), ~25 tests (1mL) ~50 tests (2mL)
3350	LIGHT DIAGNOSTICS™ Coxsackievirus Antibody Set
3355	LIGHT DIAGNOSTICS™ Poliovirus Antibody Set (Poliovirus 1, 2, 3, Blend), ~25 tests (1mL) ~50 tests (2mL)
3365	LIGHT DIAGNOSTICS™ Enterovirus Screening Set (Echovirus Blend, Enterovirus Blend, Coxsackie Blend, Poliovirus Blend, Pan-Enterovirus Blend)
3430	LIGHT DIAGNOSTICS™ Varicella-Zoster Virus DFA Kit, ~125 tests
3460	Pan-Enterovirus Detection Kit
3465	LIGHT DIAGNOSTICS™ Enterovirus Screening Set Kit (Coxsackie A9 mAb, Echovirus Blend, Enterovirus Blend, Coxsackie Blend, Poliovirus Blend, Pan-Enterovirus Reagent, IgG FITC secondary, Pan-Enterovirus Control Slides, Normal Mouse Antibody, Mounting & Wash Solutions)

Training Advice: Seek effective chemical handling training to reduce the hazards associated with this product prior to use.

Technical Contact: http://www.millipore.com/support

Abbreviations Used

ACGIH	American Conference of Government Industrial Hygienists
ADR	European agreement on the international carriage of dangerous goods on road
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	United States Environmental Protection Agency
IARC	International Agency for Research in Cancer.
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	Regulations regarding the transportation of dangerous goods on ocean-going vessels issued by the International Maritime Organization.
LC_{50}	Lethal Concentration 50% is the concentration of a chemical which kills 50% of a sample population
LD_{50}	Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.
LDLo	Lowest observed lethal dose
LEL	Lower Explosive Limit
MSFU	Manufacture, Formulation, Supply and Use (Section 13)
NIOSH	National Institute of Occupational Safety and Health (US)

NTP	National Toxicology Program (US)
OSHA	United States Occupational Safety and Health Administration
RID	International regulations concerning the international carriage of dangerous goods by rail.
RTECS	Registry of Toxic Effects of Chemical Substances (US)
STOST	Specific Target Organ Systemic Toxicity
UEL	Upper Explosive Limit
WHMIS	Workplace Hazardous Materials Information System (Canada)

This safety data sheet has been prepared to comply with the requirements of the European Union regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) 1906/2006 and ANSI standard Z400.1-1998.

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[1] Centers for Disease Control and Prevention, 1600 Clifton Rd, Atlanta, GA 30333, USA, National Institute for Occupational Health and Safety (NISOH), Registry of Toxic Effects of Chemical Substances (RTECS) #AY9296000, 2009.

[2] Centers for Disease Control and Prevention, 1600 Clifton Rd, Atlanta, GA 30333, USA, National Institute for Occupational Health and Safety (NIOSH), Registry of Toxic Effects of Chemical Substances (RTECS) File #VZ4725000, 2009.

[3] Centers for Disease Control and Prevention, 1600 Clifton Rd., Atlanta, GA, 30333, USA, National Institute for Occupational Health and Safety (NIOSH), Registry of Toxic Effects of Chemical Substances (RTECS) File #WC4500000, 2009.

[4] Centers for Disease Control and Prevention, 1600 Clifton Rd, Atlanta, GA 30333, USA, National Institute for Occupational Health and Safety (NIOSH), Registry of Toxic Effects of Chemical Substances (RTECS) File #VY8050000, 2009.

[5] Adelman, I.R., and L.L. Smith Jr., Standard Test Fish Development. Part I. Fathead Minnows (Pimephales promelas) and Goldfish (Carassius auratus) as Standard Fish in Bioassays and Their Reaction to Potential Reference Toxicants, EPA-600/3-76-061A, U.S.EPA, Duluth, MN :77 p., 1976.

[6] Dowden, B.F., and H.J. Bennett, Toxicity of Selected Chemicals to Certain Animals, J.Water Pollut.Control Fed. 37(9):1308-1316, 1965.

[7] Hughes, J.S., Use of the Red Crawfish, Procambarus clarki (Girard), for Herbicidal Assays, Proc.Annu.Conf.Southeast.Assoc.Game Fish Comm. 20:437-439, 1967.

[8] http://toxnet.nlm.nih.gov/cgi-bin/sis/search/f?./temp/~MYae0Z:1, U.S. National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894, 2009.