Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NutraPic 500 Adjuvant
EPA REGISTRATION NUMBER(S): NA
SYNONYM(S): TM-456

COMPANY
Arysta LifeScience North America Corporation 15401 Weston Parkway, Suite 150 Cary, NC 27513

EMERGENCY TELEPHONE NUMBERS	
HEALTH EMERGENCY:	SPILL EMERGENCY:
1-866-303-6952, or 1-651-632-8946	**1-800-424-9300, or 1-703-527-3887**

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	CAS #	Exposure Limits*	% Weight	% Volume
Ethylene oxide-propylene oxide copolymer ethylenediamine ether	26316-40-5	None	24	NA
Polyoxoethylene Nonylphenol	9016-45-9	None	40	NA
2-hydroxypropane (Isopropanol)	67-63-0	**TWA[a]** OSHA PEL[d]: 400 ppm 980 mg/m^3 ACGIH TLV[e]: 200 ppm 492 mg/m^3 NIOSH REL[f]: 400 ppm 980 mg/m^3 DFG MAK[g]: 200 ppm 500 mg/m^3 Peak II (2) **STEL[b]/CEIL(C)[c]** OSHA PEL: None ACGIH TLV: 400 ppm 984 mg/m^3 NIOSH REL: 500 ppm 1225 mg/m^3 IARC-3 TLV-A4	16	NA

Active Ingredient(s)/ Hazardous Inert Ingredient(s)	CAS #	Exposure Limits*	% Weight	% Volume
Benzenesulfonic acid, C_{10}-C_{16} alkyl derivatives	68584-22-5	None	12	NA
Aromatic Hydrocarbons	64742-94-5	None	4	NA
1-hydroxyhexane	111-27-3	None	3	NA
Soybean oil (Epoxidized)	8013-07-8	None	1	NA

Only the identities of the active ingredient(s) and any hazardous inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

*Source: *Guide to Occupational Exposure Values 2003*, published by ACGIH

[a]**TWA**: Time-weighted average exposure concentration for a conventional 8-hour (TLV, PEL) or up to a 10-hour (REL) workday and a 40-hour workweek.

[b]**STEL**: Short-Term Exposure Limit. Usually a 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during the workday, even if the 8-hour TWA is within the TLV-TWA, REL-TWA, or REL-TWA.

[c]**CEIL(C):** The concentration that shall not be exceeded during any part of the working exposure. NIOSH Ceiling – The exposure that shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, the ceiling shall be assessed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during the workday.

[d]**OSHA PEL**: Occupational Safety and Health Administration Permissible Exposure Limits.

[e]**ACGIH TLV**: American Conference of Governmental Industrial Hygienists, Inc., Threshold Limit Values.

[f]**NIOSH REL**: National Institute for Occupational Safety and Health Recommended Exposure Limits.

[g]**DFG MAK:** Federal Republic of Germany (DFG), Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area 2002 Maximum Concentration Values in the Workplace (MAKs).

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

The toxicological, chemical and physical properties of this product have not been fully investigated and its handling or use may be hazardous. This product is intended for experimental use by qualified personnel only.

Acute Health Hazards

Eye: Direct contact with material can cause the following: - severe irritation - possibly permanent injury.

Skin: Material can cause the following: - moderate skin irritation.

Ingestion: NDA

Inhalation: Inhalation of high vapor or mist concentrations can cause the following: - irritation of nose and throat - drowsiness - slurred speech - headache - nausea - dizziness - stupor – unconsciousness.

Chronic Health Hazards (Including Cancer): NDA

Reproductive and Developmental Toxicity: NDA

SECTION 4: FIRST AID MEASURES

Inhalation: Move subject to fresh air. Give artificial respiration if breathing has stopped.

Eyes: Immediately flush eyes with a large amount of water for at least 15 minutes. Get prompt medical attention.

Skin: Wash affected skin areas thoroughly with soap and water. Remove and wash contaminated clothing thoroughly. Do not take clothing home to be laundered. See a physician.

Ingestion: If swallowed, give 2 glasses of water to drink. Consult a physician. Never give anything by mouth to an unconscious person.

Notes to Physician: NDA

SECTION 5: FIRE FIGHTING MEASURES

Flammable Limits in Air (% by volume):		
	Upper:	NDA
	Lower:	NDA
Flash Point:		12°C / 53°F (2-hydroxypropane)
	Method Used:	NDA
Autoignition Temperature:		399°C / 750°F (2-hydroxypropane)
LEL/UEL:		2% / 12% (2-hydroxypropane)
NFPA Hazard Classification:		
	Health:	2
	Flammability:	3
	Reactivity:	0
	Other:	NA
Extinguishing Media:		Polar solvent (alcohol) foam, carbon dioxide, dry chemical, water spray
Special Fire Fighting Procedures:		Vapors can travel to a source of ignition and flash back. Wear SCBA and full protective gear. Remain upwind. Avoid breathing smoke. Use water spray to cool containers exposed to fire.
Hazardous Combustion Products:		NDA

SECTION 6: ACCIDENTAL RELEASE MEASURES

EMERGENCY PHONE NUMBERS
Exposure Calls (PROSAR): 1-866-303-6952 or 1-651-632-8946 (International)
Spill Calls (CHEMTREC): 1-800-424-9300 or 1-703-527-3887

Appropriate protective equipment must be worn when handling a spill of this material. Remove all contaminated clothing promptly. Wash all exposed skin areas with soap and water immediately after exposure. Thoroughly launder clothing before reuse. Do not take clothing home to be laundered. Eliminate all ignition sources. Ventilate the spill area. Avoid breathing vapor. Floor may be slippery; use care to avoid falling. Contain spills immediately with inert materials (e.g. sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

SECTION 7: HANDLING AND STORAGE

Low temperature storage can cause handling problems. Viscosity of material will increase. Ground all metal containers during storage, handling, and when transferring material. Avoid all ignition sources. Store away from excessive heat (e.g. steampipes, radiators), from sources of ignition and from reactive materials. Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Since emptied containers retain product residue (vapors and/or liquid) follow all MSDS and label warnings even after container is emptied. Residual vapors in empty containers may explode on ignition. Do not cut, drill, grind or weld on or near container. Triple rinse (or equivalent) and puncture empty container. Dispose of empty container in a sanitary landfill or by incineration as allowed by state and local authorities. Avoid inhalation of smoke if incinerated. For material transfer and cylinder return / venting use adequate mechanical ventilation and adsorb onto carbon for vapor recovery as necessary.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Use chemical splash goggles (ANSI Z87.1 or approved equivalent).

Skin Protection: Glove permeation data does not exist for this material. The following glove(s) should be used for splash protection only: - VITON(R) Synthetic Rubber (registered Trademark of E.I. Du Pont Co.) - Polyvinyl alcohol. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

Respiratory/Ventilation Requirements: IDLH (Immediately Dangerous to Life and Health) for 2-hydroxypropane is 12,000 ppm (rat), adjusted to 2000 ppm for humans by NIOSH. A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the TWA/TLV's. Up to 1000 ppm organic vapor: Wear a MSHA/NIOSH approved (or equivalent) half-mask, air-purifying respirator. Above 1000 ppm organic vapor or Unknown: Wear a MSHA/NIOSH approved (or equivalent) self-contained breathing apparatus in the positive pressure mode, OR, MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Air-purifying respirators should be equipped with organic vapor cartridges and dust and mist filters. Ventilation: Use explosion proof local exhaust ventilation with a minimum capture velocity of 100 ft/min. (0.5 m/sec.) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems. Other Protective Equipment: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to cloudy
Color:	Colorless to dark yellow-brown
Odor:	Mild odor
Physical State:	Liquid
pH:	5 to 9
Boiling Point:	95°C (±3°C) / 203°F (5°±F)
Melting Point:	NA
Freezing Point	NDA
Vapor Pressure: **Mixture (calculated)** **2-hydroxypropane**	 27.94 mm/Hg @ 25°C / 77°F 44.0 mm/Hg @ 25°C / 77°F
Vapor Pressure (Partial): **2-hydroxypropane** **aromatic hydrocarbon**	 27.90 mm/Hg @ 25°C / 77°F (calc.) 0.0059 mm/Hg @ 25°C / 77°F (calc.)
Vapor Density:	2
Bulk Density:	NDA
Specific Gravity:	0.975 (8.14 lbs per gallon)
Evaporation Rate:	2.83 (2-hydroxypropane)
Solubility in Water:	Completely soluble
Percent Solids by Weight:	NDA
Percent Volatile:	23%
Volatile Organic Compounds:	NDA
Molecular Weight:	NDA
Viscosity:	Medium

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	This material is considered stable. However, avoid contact with ignition sources (e.g. sparks, open flame, heated surfaces).
Hazardous Polymerization:	Product will not undergo polymerization.
Flash Point:	12°C / 53°F (2-hydroxypropane)
Flammable Point:	NDA
Auto Ignition:	399°C / 750°F (2-hydroxypropane)
Incompatibility With Other Materials:	Avoid contact with strong oxidizing and/or reducing agents.
Decomposition Products:	There are no known hazardous decomposition products for this material.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute:

Oral Toxicity: Oral LD_{50} (rat) > 5,000 mg/kg

Dermal Toxicity: Dermal LD_{50} (rabbit) > 5,000 mg/kg

Inhalation Toxicity (2-hydroxypropane): LC_{50} (rat) = 12,000 ppm/8-hr

Eye Irritation: Moderate irritation (rabbit).

Skin Irritation: Moderate irritation (rabbit).

Skin Sensitization: NDA

Subchronic: NDA

Chronic Toxicity: NDA

Carcinogenicity: NDA

Mutagenicity: NDA

Developmental Toxicity: NDA

Reproduction: NDA

Neurotoxicity: NDA

SECTION 12: ECOLOGICAL INFORMATION

Aquatic Organism Toxicity: NDA

SECTION 13: DISPOSAL CONSIDERATIONS

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

SECTION 14: TRANSPORT INFORMATION

D.O.T. Shipping Name:	FLAMMABLE LIQUID, n.o.s. (contains 2-hydroxypropane)
Technical Shipping Name:	NDA
Packing Group:	II
D.O.T. Hazard Class:	3
U.N/N.A. Number:	UN1993
Product RQ (lbs):	NDA
D.O.T. Label:	3
D.O.T. Placard:	3
Marine Pollutant:	NDA
IMO :	
IMO Label:	3
IMO Placard:	3
European Road/Rail:	
Class:	3

SECTION 15: REGULATORY INFORMATION

U.S Federal Regulations

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act): All pesticides are governed under FIFRA. Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

CERCLA (Comprehensive Response Compensation, and Liability Act): NA

OSHA (Occupational Safety and Health Administration): This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

SARA Title III (SUPERFUND Amendments and Reauthorization Act):

Section 302 (EHS) TPQ: NA

Section 304 (EHS) RQ: NA

Section 311/312 CATEGORIES
1. Immediate (Acute) Health Effects; **YES**
2. Delayed (Chronic) Health Effect; **NDA**
3. Fire Hazard; **YES**
4. Sudden Release of Pressure Hazard; **NDA**
5. Reactivity Hazard; **NDA**

TSCA (Toxic Substance Control Act): This product is exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

State Regulations: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

SECTION 16: OTHER INFORMATION

Reason for issue:	Changes to Company Address (Section 1) and Telephone Number (Section 16)
Prepared by:	James J. Reilly, Jr.
Issue date:	03/05/06
Supersedes date:	11/03/05
MSDS number:	00115

The information in this MSDS is based on data available to us as of the issue date given herein, and believed to be correct. Contact Arysta LifeScience North America Corporation at (919) 678-4900 to determine if additional data and information have become available since the issue date.

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