Document:	**D-54019**
Version:	**D-54019-002**
Release date:	**Feb 27, 2009**
Update date:	**Feb 26, 2014**
Printed on:	**Feb 26, 2014**

MATERIAL SAFETY DATA SHEET

Applies to part numbers: R-14012-500 K-02101-010 K-02101-025

Section 1 Product and company identification

Product name: **Afyon™-protein concentration resin**

Supplier: Advansta Inc.

Address: 1505 Adams Dr., Ste. B1

Menlo Park, CA 94025

Phone: 650-325-1980

Section 2 Composition/Information on Ingredients

Ingredient	CAS #	concentration
Pigmented affinity resin, protein binding, proprietary composition	n/a	25%
Sodium Azide	26628-22-8	0.005%

Sodium Azide (CAS # 26628-22-8) is added as a stabilizer at the concentration of 0.005%. According to the OSHA Hazard Communications Standard (29 CFR 1910.1200), if a material contains less than 1% of a hazardous chemical or less than 0.1% of a carcinogen, the mixture shall not be considered hazardous. However, precautions for handling potentially dangerous reagents should be practiced when using these products. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 3 Hazards identification

EMERGENCY OVERVIEW:

WARNING! CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Irritating to eyes, respiratory system and skin. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Avoid contact with eyes, skin and clothing. Contains material that can cause target organ damage. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.

HMIS RATING	
HEALTH	**1**
FLAMMABILITY	**0**
REACTIVITY	**0**

NFPA RATING	
HEALTH	**1**
FLAMMABILITY	**0**
REACTIVITY	**0**

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
INHALATION EXPOSURE	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
DERMAL EXPOSURE	In case of contact, immediately wash skin with soap and copious amounts of water.
EYE EXPOSURE	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Azide reacts with many heavy metals such as lead, copper, mercury, silver, gold to form explosive compounds. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive. Incompatible with chromyl chloride, hydrazine, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile.

FLASH POINT	N/A
AUTOIGNITION TEMP	N/A
FLAMMABILITY	N/A
EXTINGUISHING MEDIA	
Suitable:	Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.
Not suitable:	Not known
FIREFIGHTING	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

METHODS FOR CLEANING UP: Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Store at 2-8°C

Section 8 - Exposure Controls / PPE

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Protective gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES: Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 - Physical and chemical properties

Appearance Physical State: Light-blue solid resin slurry in water.

Solvent Content: N/A

pH 6.0 to 7.8

Section 10 - Stability and Reactivity

STABILITY: Stable

Materials to Avoid: Dimethyl sulfate is incompatible with sodium azid, Acid chlorides, Halogenated solvents Avoid contact with metals. Avoid contact with acid. Azide reacts with many heavy metals such as lead, copper, mercury, silver, gold to form explosive compounds. Copper and lead azides are more sensitive than nitroglycerine. Azide reacts with metal halides to give a range of metal azide halides, many of which are explosive. Incompatible with chromyl chloride, hydrazine, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: Harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects. Many azides cause a fall in blood pressure and some inhibit enzyme action.

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

Section 12 - Ecological Information

No known significant effects or critical hazards.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION:

Observe all federal, state, and local environmental regulations.

Within the present knowledge of the supplier, this product is not regarded as hazardous waste.

Section 14 - Transport Information

DOT

Proper Shipping Name:	None
Non-Hazardous for Transport:	This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport:	Non-hazardous for air transport.

Section 15 - Regulatory Information

HCS Classification:	Irritating material
	Target organ effects

Section 16 Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

DISCLAIMER: For R&D use only. Not for drug, household or other uses.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.