

MATERIAL SAFETY DATA SHEET


Natro-Cel 517-A-75

Issue Date: March 8, 2010

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Natro-Cel 517-A-75
CHEMICAL NAME: Trifunctional Methacrylic Ester on silicon dioxide

Company:  NATROCHEM, INC.
P.O. Box 1205
Savannah, GA 31402-1205

HMIS RATING

Health	2
Flammability	1
Reactivity	2
Personal Protection	D

Telephone Numbers:

Transportation Emergencies:

CHEMTREC (U.S.A.): (800) 424-9300 (24 hours)

CHEMTREC (International): (202) 483-7616 (24 hours, call collect)

Product Information: (912) 236-4464 (EST, 8:00AM – 4:00PM M-F)

SECTION 2- HAZARDOUS INGREDIENTS

The component(s) listed below is identified as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

INGREDIENT	CAS REGISTRY	PERCENT
Silicon Dioxide	7631-86-9	23-26%

SECTION 3 - PHYSICAL DATA

Boiling Point:	N/DA	Specific Gravity:	1.221
Vapor Pressure (mm Hg):	N/DA	Percent Volatiles:	Negligible
Vapor Density (Air = 1):	N/DA	Evaporation Rate:	N/DA
Solubility in Water:	Negligible	Odor:	mild
Appearance:	Yellow powder		

SECTION 4 - FIRE & EXPLOSION DATA

FLASH POINT (Method Used): >200° F (PMCC)

FLAMMABLE LIMITS: N/DA

AUTOIGNITION TEMPERATURE: N/DA

EXTINGUISHING MEDIA: Dry chemical, CO2, Foam. Use water spray and/or water fog for cooling.

SPECIAL FIRE FIGHTING PROCEDURES: Do not enter fire area without proper protection. Fight fire from safe distance and protected location. Heat and impurities may increase temperature, build pressure, rupture closed containers, spreading fire, increasing risk of burns and injuries. Water may be ineffective in firefighting due to low solubility. Use water spray and/or fog for cooling. Pressure relief system may plug with solids, increasing risk of over pressure. Notify authorities if liquid enters sewers and/or public waters.

UNUSUAL FIRE & EXPLOSION HAZARDS: High temperatures, inhibitor depletion, accidental impurities, exposure to radiation, oxidizers may cause spontaneous polymerizing reactions generating heat and pressure. Fire conditions may cause rapid and uncontrolled polymerization in closed containers, which can result in explosions and violent rupture of storage vessels or containers.

SECTION 5 - PERMISSIBLE EXPOSURE LIMITS

Silicon Dioxide: OSHA: 6 mg/m³ (total dust), 8 hr. TWA; 29 CFR 1910.1000 (rev. 3/1/89). PPG Internal Permissible Exposure Limit (IPEL); Synthetic Precipitated Silicate: 5 mg/m³ (respirable dust), 8 hr. TWA. CHRONIC HEALTH EFFECTS: Silicon Dioxide: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed for an average of 18 years. No adverse effects were noted in complete medical examination (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposure. Laboratory studies have also been conducted in small animals via inhalation to levels of precipitated silica dust of up to 126 mg/m³ for periods from six months to two years. Although precipitated silica was temporarily deposited in the animal's lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of all studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silica.

SECTION 6 - HEALTH HAZARD DATA

PRIMARY ROUTE OF ENTRY- Inhalation, Eye, Skin, and Ingestion.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: None.

NTP: No IARC: No OSHA: No

EFFECTS OF EXPOSURE-

EYES- Mildly irritating. Excessive contact with powder can cause drying of mucous membranes of eyes due to absorption of moisture and oils.

SKIN- This material has been shown to be a moderate skin irritant and an allergic sensitizer. Repeated contact can cause skin sensitization. May aggravate allergy, eczema, or skin conditions.

INHALATION- Nuisance dust. Excessive contact with powder can cause drying of mucous membranes of nose and throat due to absorption of moisture and oils. This material can also cause nasal irritation and nosebleeds. Aerosols or vapors which may be generated at elevated processing temperatures may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath. Avoid breathing vapors.

INGESTION- Slightly toxic and may be harmful if swallowed.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE- Persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection. This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

SECTION 7 - EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: Immediately rinse with clean water for 15 minutes. Retract eyelids often. If irritation persists, seek medical attention.

SKIN CONTACT: Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. Seek medical attention if ill effect or irritation develops.

INHALATION: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

INGESTION: Ingestion unlikely. However, if ingested, obtain emergency medical attention. Do not induce vomiting. Risk of damage to the lungs exceeds poisoning risk.

EMERGENCY MEDICAL TREATMENT PROCEDURES: Continue to rinse eye with clean water for 20-30 minutes, retracting eyelids often. Contact ophthalmologist immediately. Maintain airway. If patient is cyanotic, provide artificial ventilation and/or oxygen immediately. CPR may be indicated.

SECTION 8 - REACTIVITY DATA

STABILITY: Stable when stored in original container under proper storage conditions. Unstable (reactive) upon loss of inhibitor.

CONDITIONS TO AVOID- Avoid storage temperature above 100F. Temperature above 110F may cause depletion of the polymerization inhibitor resulting in exothermic polymerization. Avoid alteration of product properties before reuse. Calcining may result in crystalline silica formation and may alter toxicological properties. Mixing with additives may alter toxicological properties. Avoid UV Radiation, strong oxidizing and reducing agents, free radical inhibitors.

HAZARDOUS DECOMPOSITION PRODUCTS: Acrid smoke, fumes. Oxides of carbon may be released upon thermal decomposition.

HAZARDOUS POLYMERIZATION: May occur.

SECTION 9 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: MINIMIZE SPILL AREA. Vacuum spill material and place in closed plastic bags for disposal. Report per regulatory requirements.

WASTE DISPOSAL METHOD: Contaminated product, soil, or water may be RCRA/OSHA Hazardous Waste due to potential for internal heat generation (See 40 CFR 261 and 29 CFR 1910). It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids in systems that use compatible fuel. Dilute with clean, low viscosity fuel. Avoid flame-outs. Assure emissions comply with local, state, and federal regulations. Dilute aqueous waste may bio-degrade. Avoid overloading and poisoning plant biomass. Assure effluent complies with applicable regulations.

SECTION 10 - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Provide explosion-proof ventilation and engineering controls to prevent exposure to dust, mist and vapors. Use a respirator such as 3M 9900 or equivalent for added personal protection.

PROTECTIVE GLOVES: Wear impervious gloves to protect against contact with product.

EYE PROTECTION: Wear chemical safety goggles.

OTHER PROTECTIVE EQUIPMENT: Use an organic cartridge respirator if needed to prevent exposure to dust or vapors. Provide protective clothing, eye wash station and safety shower.

SECTION 11 – HANDLING PRECAUTIONS

HANDLING AND STORAGE: Handling can create explosive dust clouds. Eliminate ignition sources, use explosive proof equipment. Conveying and processing equipment should be spark-proof, well bonded and grounded. Avoid dust accumulations.

Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective. Prevent freezing; inhibitor separates as solid. In the event of loss of inhibitor this product can polymerize causing a rise in temperature and pressure and possibly rupture of the container. If frozen, the material must be warmed and remixed gently (<90° F). Prevent contact with moisture. Store in the original container when possible, tightly closed, away from heat, sparks, open flames, strong oxidizers, radiation, and other initiators. Prevent contamination by foreign materials. Use only non-sparking tools and limit storage time.
OTHER PRECAUTIONS: Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Launder contaminated clothing before reuse.

SECTION 12 – REGULATORY INFORMATION

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WARNING!! MAY CAUSE IRRITATION. MAY CAUSE ALLERIGC SKING REACTION. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. AVOID BREATHING VAPOR, MISTS OR SPRAY. USE WITH GOOD VENTILATION. WASH AFTER HANDLING. STORE IN COOL DRY AREA IN CLOSED CONTAINERS. AVOID EXPOSURE TO SUNLIGHT.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): NONE.

CAS REGISTRY #	CHEMICAL NAME	PERCENT BY WEIGHT
NONE.		

Reportable Quantity (RQ), EPA Regulation 40 CFR 302 (CERCLA Section 102): none
No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).

Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355 (SARA Sections 301-313): none
No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

Hazardous Chemical Reporting, EPA Regulation 40 CFR 370 (SARA Sections 311-312):

Silicon Dioxide- Acute Hazard

TSCA STATUS: All components of this product are listed, or excluded from listing, on the US EPA TSCA inventory.

TRANSPORTATION: Not regulated.

This product contains an inhibitor (HQ, MEHQ, etc.) at <1%.

SECTION 13 - OTHER INFORMATION

Revision Note: Original issue, March 8, 2010
Prepared by: Craig Moore Title: Plant Engineer

N/A=Not applicable, N/D=Not determined, N/DA=No Data Available, N/E=Not established

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