MATERIAL SAFETY DATA SHEET

1- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Natro-Cel 9000-A
SYNONYMNS: phthalate plasticizer on precipitated silica
Issue Date: April 27, 2009

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

For Product Information (8 a.m. to 4 p.m. Eastern time) telephone: 1-912-236-4464

Transportation Emergencies:
CHEMTREC (U.S.A.): (800) 424-9300 (24 hours)
CHEMTREC (International): (202) 483-7616 (24 hours, call collect)

2- INFORMATION ON INGREDIENTS

INGREDIENT	CAS REGISTRY	PERCENT
Di isononyl phthalate	28553-12-0	~32
Polyester sebacate	8009285002	~40
Silicon Dioxide	7631-86-9	~28

3- HAZARD IDENTIFICATION

EYES- May cause eye irritation of susceptible person. Excessive contact with powder can cause drying of mucous membranes or eyes.
SKIN- Repeated or prolonged skin contact may cause skin irritation. Mildly irritating.
INHALATION- May cause dizziness. Nuisance dust. Excessive contact with powder can cause drying of mucous membranes of nose and throat. This material can also cause nasal irritation and nosebleeds.
INGESTION- May be harmful if swallowed. May irritate mouth, throat and stomach.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: None.
NTP: No IARC: No OSHA: No

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.

4 – FIRST AID MEASURES

EYE CONTACT: Rinse with clean water for 15 minutes. Retract eyelids often. If irritation persists, seek medical attention.
SKIN CONTACT: 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: Remove victim to fresh air.
INGESTION: Rinse mouth and seek medical attention.

5- EXPLOSION AND FIRE-FIGHTING MEASURES

FLASH POINT (COC): > 240C (465F)
EXTINGUISHING MEDIA: CO2, dry chemical, water fog, foam.

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus. Use water spray to cool fire-exposed containers.

UNUSUAL FIRE & EXPLOSION HAZARDS: Water may cause frothing.

6 – ACCIDENTAL RELEASE / SPILL PROCEDURES

Vacuum spilled material and place in closed plastic bags for disposal. Floor can be washed with hot water solution. Remove contaminated clothing and wash before reuse. Wash affected skin areas with soap and water. Keep spills out of all sewers and bodies of water.

Dispose of in accordance with local, state, and federal regulations.

7 – 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. Containers should be kept tightly closed and stored in a dry, well-ventilated place.

Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Launder contaminated clothing before reuse.

8 – PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use a respirator such as 3M 9900 or equivalent for protection against pneumoconiosis producing dusts.
OSHA PEL:

Silicon Dioxide	6 mg/m^3 (total dust)	8 hr TWA
Synthetic Precipitated Silicate:	5 mg/m^3 (respirable dust)	8 hr TWA
Diisononyl phthalate	5 mg/m^3	8 hr TWA

VENTILATION: Provide explosion proof ventilation as required to control airborne dust levels. All possible health effects are not known and individual sensitivities will vary. Effective exhaust ventilation should always be provided to draw dust, fumes and vapors away from workers to prevent inhalation.

PROTECTIVE GLOVES: Impervious gloves such as neoprene or viton.

EYE PROTECTION: Safety goggles.

OTHER PROTECTIVE EQUIPMENT: Protective clothing, eye wash station, safety shower. For normal operation, local exhaust ventilation should suffice. Direct exhaust is recommended when material becomes heated and vapors are given.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	>600º C	Specific Gravity (calc.): 1.23	
Vapor Pressure (mm Hg):	N/A	Volatility:	<2g/L
Vapor Density (Air = 1) :	<25	Evaporation Rate:	0.1
Solubility in Water:	Insoluble	Odor:	ester
Appearance:	Off-white powder		

10 – STABILITY AND REACTIVITY

STABILITY: This product is stable under normal conditions.

MATERIALS TO AVOID- Avoid strong oxidizing agents. Avoid alteration of product properties before reuse. Avoid mixing with additives which may alter toxicological properties.

CONDITIONS TO AVOID- Avoid high temperatures (>800º C) which may result in crystalline formation.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal conditions. Oxides of carbon when burned.

HAZARDOUS POLYMERIZATION: Will not occur under normal condiditons.

11 –TOXICOLOGICAL INFORMATION

Acute Toxicity: No toxicological information is available at this time for the ester component of this product.
Skin Irritation: Mildly irritating.
Eye Irritation: Mildly irritating.

The silica component of this product is not listed as a carcinogen or suspected carcinogen by NTP, IARC, ACGIGH, or OSHA.

EFFECTS OF OVEREXPOSURE:

ACUTE: Excessive contact with powder can cause drying of mucous membranes of nose, eyes and throat due to absorption of moisture and oils. This material can also cause nasal and respiratory tract irritation and nosebleeds. Eye contact with powder can result in mild irritation.

CHRONIC: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (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 exposures. Laboratory studies have also been conducted in small animals via inhalation of levels of precipitated silica dust of up to 126 mg/cu.m. per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals´ 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 silicas. PPG recommends that 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. IARC reviewed the data on amorphous silica in 1996 and concluded there was inadequate evidence from both epidemiology and experimental studies that amorphous silica is a carcinogenic risk factor. The organization concluded that amorphous silica is in Group 3.

12 –ECOLOGICAL INFORMATION

No ecological information is available at this time for the ester component of this product.

ECOTOXICOLOGICAL INFORMATION, for the silica component of this product:
EC0: >1000 ppm (daphnia magna) (24-hour acute immobilization test) - Slight to very low toxicity.
EC0: >10,000 ppm (rainbow trout) (4-day static study) - Slight to very low toxicity.
EC0: >10,000 ppm (freshwater fish) (96-hour static acute toxicity study) - Slight to very low toxicity.

13 –DISPOSAL CONSIDERATIONS

Material should be disposed of in accordance to current local and national regulations. Contact a waste disposal service.

14 – TRANSPORT INFORMAITON

Not classified as hazardous according to the US Department of Transportation.

15 –REGULATORY INFORMATION

TSCA: The components of this product are regulated under 5(e) consent Order under Toxic Substances Control Act. It is in compliance with the requirements under TSCA.

EINECS: The components of product or its monomers are listed on the European Inventory of Existing Chemical Substances.

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

SARA 311/312: This product contains the following hazards as defined in EPA Regulation 40 CFR 372 (SARA Sections 311-312): Acute Hazard

California Prop 65: This product contains the following substances know to the state of California to cause cancer, birth defects, or other reproductive hare per the Safe Drinking Water and Toxic Enforcement Act of 1986: NONE.

CERCLA: Reportable Quantity (RQ), EPA Regulation 40 CFR 302 (CERCLA Section 102):
No RQ - for product or any constituent greater than 1% or 0.1% (carcinogen).

TPQ: Threshold Planning Quantity (TPQ), EPA Regulation 40 CFR 355 (SARA Sections 301-313):
No TPQ - for product or any constituent greater than 1% or 0.1% (carcinogen).

16 - OTHER INFORMATION

Revision Date: April 27, 2009
Previous Revision Date: Original Issue
Revision Note: (original issue)
Prepared by: Craig Moore

N/A=Not applicable; N/D=Not determined; N/DA=No Data Available; N/E=Not established; PEL=permissible exposure limit; TLV=threshold limit value; TWA=time weighted average