# MATERIAL SAFETY DATA SHEET
## NATRO-CEL® 1312-S-50

Date Revised: June 21, 2000



### SECTION I - PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: Natro-cel 1312-S-50
CHEMICAL NAME: Acrylonitrile/Butadiene Polymer on Silicon Dioxide

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

| HMIS RATING | |
|---|---|
| HEALTH | 2 |
| FLAMMABILITY | 1 |
| REACTIVITY | 0 |

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 II - COMPONENTS

| COMPONENT NAME | CAS# |
|---|---|
| Acrylonitrile/Butadiene Polymer | 9003-18-3 |
| Silicon Dioxide | 7631-86-9 |

### SECTION III - PHYSICAL DATA

Boiling Point: N/DA
Vapor Pressure (mm Hg): N/DA
Vapor Density (Air = 1): N/DA
Solubility in Water: Insoluble
Specific Gravity: ~1.163 (Calculated)
Percent Volatiles: <1
Evaporation Rate: N/DA
Appearance and Odor: Off white, free flowing powder with characteristic odor.

### SECTION IV - FIRE & EXPLOSION DATA

FLASH POINT (Method Used): N/E (Expected to be > >200EF)
FLAMMABLE LIMITS: N/E
AUTOIGNITION TEMPERATURE: N/E
EXTINGUISHING MEDIA: Water, ABC dry chemical, or Protein type air foams are recommended media. Elastomers would be considered "ordinary combustibles" (NFPA defined Class A). Carbon dioxide is generally not recommended for use on Class A fires as a lack of cooling capacity may result in reignition.
SPECIAL FIRE FIGHTING PROCEDURES: Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.
UNUSUAL FIRE & EXPLOSION HAZARDS: Closed containers may rupture due to pressure buildup under fire conditions. Toxic gases may be formed upon combustion and represents a hazard to firefighters. See Section VII for additional information on combustion products.

### SECTION V - HEALTH HAZARD DATA

CHRONIC HEALTH EFFECTS: 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 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 silica.

PRIMARY ROUTE OF ENTRY- Inhalation, skin, eye contact and process vapor inhalation.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: See Appendix.
NTP: No IARC: No OSHA: No

POTENTIAL HEALTH EFFECTS FROM OVEREXPOSURE:
No adverse effects are expected during normal processing when potential exposures are eliminated by good industrial hygiene practice and well ventilated conditions. At processing temperatures, the combined ingredients (elastomer and other processing ingredients) may emit fumes and vapors that may cause irritation to the eyes, skin, nose, throat, and respiratory tract. Processing under conditions of inadequate ventilation may produce symptoms nausea, dizziness, or headaches. Typically these effects are reversible upon removal from exposure and no lasting effects are expected. Most importantly, the potential for irritation will depend on the effectiveness of exhaust ventilation provided to the process area.

Nipol 1312 contains a trace amount of p-t-butyl phenol as a component of the antioxidant package. Although rare, there are reports of pigmentation of the skin (vitiligo) associated with this compound in related elastomer products. We recommend that contact with exposed skin be avoided by the use of gloves and other personal protective equipment appropriate for handling and/or processing.

Overexposure to decomposition or combustion products may cause irritation of the eyes, skin, and respiratory tract. Symptoms such as coughing, tearing, and irritation should be regarded as potentially hazardoous and measures taken to avoid exposure.

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- Mildly irritating

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.

INGESTION- Not significantly toxic.

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.

## SECTION VI - 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. If breathing has stopped, administer artificial respiration and seek medical assistance immediately.

INGESTION: N/DA

STABILITY: Stable.

MATERIALS TO AVOID- Avoid alteration of product properties before reuse. Calcining, which may result in crystalline formation or mixing with additives may alter toxicological properties. Strong oxidizers and reducing agents.

CONDITIONS TO AVOID- Avoid high temperatures (>800 C) treatment. Overheating

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon when burned.

HAZARDOUS POLYMERIZATION: Fumes produced when heated to decomposition temperatures may contain oxides of carbon, hydrogen cyanide, oxides of nitrogen, and small amounts of aromatic and aliphatic hydrocarbons. Combustion products from rubber, like those of other natural and synthetic materials, must be considered toxic.

## SECTION VIII - 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.

WASTE DISPOSAL METHOD: In accordance with local, state, and federal regulations.

## SECTION IX - SPECIAL PROTECTION INFORMATION

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

VENTILATION: Provide explosion proof ventilation as required to control airborne dust levels. The sum total of all ingredients may emit vapors during normal processing. 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 routine inhalation. Ventilation should be adequate to maintain ambient workplace atmosphere below the limits listed in Section V.

PROTECTIVE GLOVES: Impervious gloves to protect against contact with product.

EYE PROTECTION: Safety goggles.

OTHER PROTECTIVE EQUIPMENT: Protective clothing, eye wash station, safety shower.

## SECTION X - SPECIAL 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.

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



## SECTION XI - REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA):
The components of this product are contained on the Inventory of the Toxic Substance Control Act.

CHEMICAL INVENTORIES:
OSHA:
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# | AMOUNT | ACGIH (TLV) | OSHA (PEL) | UNITS |
|---|---|---|---|---|---|
| Silicon Dioxide | 7631-86-9 | 50% | 10 | 6 | mg/m3 |
| Acrylonitrile | 107-13-1 | <10 ppm | 2 (TWA) | 2 (TWA) | ppm |
| Butadiene | 106-99-0 | <0.2 ppm | 1 (TWA) | 2 (TWA) | ppm |
| 4-Vinyl Cyclohexane | 100-40-3 | <0.1% est. | 0.1 (TWA) | N/E | ppm |

SARA 313 TOXIC CHEMICALS:
This product does not contain any toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and the Pollution Prevention Act of 1990.

CAS REGISTRY # CHEMICAL NAME PERCENT BY WEIGHT

This information must be included in all MSDS's that are copied and distributed for this material.

SECTION 311/312 - HAZARD CATEGORIES:
The physical and health hazard categories for the hazardous components exceeding the de minimis amount subject to reporting under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372

| Name of Chemical | Hazard | Percent in Product |
|---|---|---|
| Silicon Dioxide | Acute | 50% |

ADDITIONAL RIGHT-TO-KNOW INFORMATION ON COMPONENTS:

| Component | CAS# | Key |
|---|---|---|
| Acrylonitrile | 107-13-1 | 2,8 |
| Butadiene | 106-99-0 | 2,8 |
| 4-Vinyl Cyclohexane | 100-40-3 | 2 |
| Acrylonitrile/Butadiene Polymer | 9003-18-3 | 7,13 |

(See Key on Next Page)

| Description | Description |
|---|---|
| Reserved | MA Extraordinary Hazardous Substance above 1 ppm |
| CA Listed Carcinogen | MA Toxic or Hazardous Substance above 1% |
| CA Listed Reproductive Toxin | NJ Hazardous Substance above 1% |
| PA Special Hazardous Substance above 0.01% | NJ Special Health Hazard Substance above 0.1% |
| PA Hazardous Substance above 1% | NJ Environmental Hazardous Substance above 1% |
| PA Non-Hazardous Substance above 3% | NJ Non-Hazardous Substance above 1% |
| PA Non-Hazardous Substance above 5% | Canadian WHMIS Ingredient DLS |

TRANSPORTATION INFORMATION:
DOT Shipping Name: Not applicable
DOT Identification Number: Not regulated

## SECTION XII - OTHER INFORMATION

Appendix A - Acrylonitrile

This product contains trace amounts of acrylonitrile. Acrylonitrile is regulated by OSHA at 29 CFR 1910.1045. Acrylonitrile is listed by OSHA as a carcinogen, by IARC as a Group 2A carcinogen, by NTP as an anticipated human carcinogen, and by ACGIH as a suspected human carcinogen. Air sampling studies conducted on related acrylonitrile/butadiene polymers under simulated compound processing conditions showed airborne concentration of acrylonitrile to be below one (1) ppm. Users should not rely on manufacturer's data alone, but should do sufficient in-plant testing for acrylonitrile levels to assure compliance of their operations.

Appendix B - Butadiene

This product contains trace amounts of butadiene. Butadiene is regulated by OSHA at 29 CFR 1910.1051. Butadiene is listed by the IARC as a Group 2A carcinogen, by NTP as an anticipated human carcinogen, and by ACGIH as a suspected human carcinogen.

Appendix C - 4-Vinyl Cyclohexane

This product contains trace amounts of 4-Vinyl Cyclohexane. 4-VCH is listed by the IARC as a Group 2B carcinogen and by ACGIH as an animal carcinogen.

Revision Note: New MSDS.
Prepared by: James L. Pye, Jr.
Title: Safety Coordinator

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