

MATERIAL SAFETY DATA SHEET


SARET 521 DLC®-A

Date Revised: June 22, 2000

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SECTION I - PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: SARET 521 DLC-A
CHEMICAL NAME: Difunctional Acrylic Esters on Silicon Dioxide

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

HMIS RATING	
Health	2
Flammability	1
Reactivity	2

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, 8:00 a.m. – 4:00 p.m. M-F)

SECTION II - 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 #	ACGIH (TLV)	OSHA (PEL)	UNITS
Silicon Dioxide	7631-86-9	10	6	mg/m ³
Difunctional Acrylic Esters	Proprietary	N/DA	N/DA	

SECTION III - PHYSICAL DATA

Boiling Point: N/DA

Vapor Pressure (mm Hg): N/DA

Vapor Density (Air = 1): N/DA

Solubility in Water: Negligible

Appearance and Odor: White, free-flowing powder with musty odor.

Specific Gravity: 1.22 (Calculated)

Percent Volatiles: Negligible

Evaporation Rate: N/DA

SECTION IV - FIRE & EXPLOSION DATA

FLASH POINT (Method Used): > 200° F

FLAMMABLE LIMITS: N/DA

AUTOIGNITION TEMPERATURE: N/DA

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

SPECIAL FIRE FIGHTING PROCEDURES: Do not enter area without proper protection. See Section on decomposition products possible. Fight fire from safe distance and protected location. Heat and impurities may increase temperature, build pressure, rupture closed containers, spreading fire, and 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 overexposure. Notify authorities if liquid enters sewer or public waters.

UNUSUAL FIRE & EXPLOSION HAZARDS: High temperatures, inhibitor depletion, accidental impurities, exposure to radiation, oxidizers may cause spontaneous polymerization reaction, generating heat and pressure. Closed containers may rupture and explode during runaway polymerization.

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 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. A major component of this product has been shown to produce allergic skin sensitization in guinea pigs. Cross-sensitization reactions to similar materials have also been reported for this species. Dermatitis has been seen in animal studies.

PRIMARY ROUTE OF ENTRY- Inhalation, eye and skin

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. Irritation may include burning sensation, tearing, redness and swelling.

SKIN- This material has been shown to be a moderate skin irritant and an allergic sensitizer. Extensive and prolonged or repeated exposure to this material can result in absorption.

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. Prolonged overexposure may cause coughing, shortness of breath, dizziness and intoxication.

INGESTION- Not significantly toxic. May be a slight health hazard if ingested in large quantities.

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 VI - EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: Immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency 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.

SECTION VI - EMERGENCY & FIRST AID PROCEDURES

INGESTION: If large quantity swallowed, give lukewarm water (pint) if victim completely conscious and alert. Do not induce vomiting; risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

EMERGENCY MEDICAL TREATMENT PROCEDURES: If swallowed, do not induce vomiting. Gastric lavage is recommended. Hemodialysis may be indicated for more complete elimination. If exposed, treat skin and eye burns or irritation conventionally after decontamination.

SECTION VII - REACTIVITY DATA

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, free radical initiators, inert gases.

CONDITIONS TO AVOID- Avoid high temperatures (>800° C) treatment. Heat, oxidizing conditions, inert gas blanketing, UV radiation, direct sunlight.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon when burned.

HAZARDOUS POLYMERIZATION: May occur.

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. Release can cause fire and explosion. May polymerize, release heat and gases. Extinguish all ignition sources. Blanket with firefighting foam. Impound and recover large land spill; soak up small spill. On water, contain and minimize dispersion, collect. Report per regulatory requirements.

WASTE DISPOSAL METHOD: Contaminated product, soil, and water may be RCRA, OSHA hazardous waste due to potential for internal heat generation (See 40 CFR 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids in systems that use compatible fuel. Dilute with clean, low viscosity fuel. Avoid flameouts. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading and poisoning plant biomass. Assure effluent complies with applicable 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. Contact lenses should not be worn.

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

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Do not blanket or mix with oxygen-free gas as it renders inhibitor ineffective. Prevent freezing; inhibitor separates as solid. If frozen, material must be warmed and remixed gently (<90° F). Prevent moisture contact. Store away from heat, sparks, open flame, strong oxidizers, radiation and other initiators. Prevent contamination by foreign materials. Use only non-sparking tools and limit storage time. 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.

SARA TITLE III INFORMATION:**SECTION 313 - TOXIC CHEMICALS:**

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):

CAS REGISTRY #	CHEMICAL NAME	PERCENT BY WEIGHT
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This product does not contain a toxic chemical in excess of 1% of the mixture.

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

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES:

This product does not contain an extremely hazardous substance.

SECTION 311/312 - HAZARD CATEGORIES:

The physical and health hazard categories for this product are:

- Fire Hazard: No
- Sudden Release of Pressure Hazard: Yes, if inhibitor is depleted.
- Reactivity Hazard: Upon Depletion of inhibitor
- Immediate (Acute) Health Hazard: Silicon Dioxide, 28%
- Delayed (Chronic) Health Hazard: None

TRANSPORTATION INFORMATION:

DOT Shipping Name: Not regulated

DOT Identification Number: N/DA

SECTION XII - OTHER INFORMATION

Revision Note: Added CHEMTREC information.

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

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