

MATERIAL SAFETY DATA SHEET  
SR 351 DLC® -A

Date Revised: June 30, 2011

Page 1 of 4

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: SR 351 DLC-A  
CHEMICAL NAME: SR351H dispersed on silica

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 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	28
Trimethylolpropane triacrylate esters (SR351H) (TMPTA inhibited with MEHQ)	15265-89-5	72

SECTION 3 - PHYSICAL DATA

Boiling Point:	N/DA	Specific Gravity, apparent:	1.239
Vapor Pressure (mm Hg):	N/DA	Percent Volatiles:	Negligible
Vapor Density (Air = 1):	N/DA	Evaporation Rate:	N/DA
Solubility in Water:	Negligible	Odor:	pungent
Appearance:	Off-white powder		

SECTION 4 - FIRE & EXPLOSION DATA

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

FLAMMABLE LIMITS: N/A

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam or carbon dioxide.

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 for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer and public waters.

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

SECTION 5 - PERMISSIBLE EXPOSURE LIMITS

Silicon Dioxide: OSHA: 6 mg/m<sup>3</sup> (total dust), 8 hr. TWA; 29 CFR 1910.1000 (rev. 3/1/89). PPG Internal Permissible Exposure Limit (IPEL); Synthetic Precipitated Silicate: 5 mg/m<sup>3</sup> (respirable dust), 8 hr. TWA.

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**SECTION 6 - HEALTH HAZARD DATA**

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**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/m<sup>3</sup> 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.

**PRIMARY ROUTE OF ENTRY-** Inhalation, eye, skin.

**CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:** None.

NTP: No                      IARC: No                      OSHA: No

**EFFECTS OF EXPOSURE-**

**EYES-** Excessive contact with powder can cause drying of mucous membranes of eyes due to absorption of moisture and oils. Expected to be an eye irritant, including burning sensation, tearing, redness or swelling.

**SKIN-** Exposure to this material can result in absorption through skin causing health hazard. May cause delayed skin irritation and blistering. Repeated exposure may cause sensitization; and allergic response of the skin.

**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.

**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. This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

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**SECTION 7 - EMERGENCY & FIRST AID PROCEDURES**

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**EYE CONTACT:** Immediately rinse with clean water for 15 minutes. Retract eyelids often. Get 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. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

**INGESTION:** Not expected to present a significant ingestion hazard under anticipated conditions of normal use. However, if amounts are ingested, seek emergency medical attention.

STABILITY: Stable.

MATERIALS TO AVOID- Avoid alteration of product properties before reuse. Avoid calcining, which may result in crystalline formation. Avoid mixing with additives that may alter toxicological properties. Avoid strong oxidizers, free radical initiators, inert gases oxygen scavengers.

CONDITIONS TO AVOID- Avoid heat, direct sunlight, strong oxidizing conditions, freezing conditions, ultraviolet radiation, inert gas blanketing.

HAZARDOUS DECOMPOSITION PRODUCTS: Acrid smoke and fumes may result during the initial stages of a fire.

HAZARDOUS POLYMERIZATION: May occur.

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#### SECTION 9 - SPILL OR LEAK PROCEDURES

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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. Spilled or released material may polymerize, release heat, gases. Extinguish all ignition sources. Blanket with firefighting foam. Report per regulatory requirements.

WASTE DISPOSAL METHOD: Contaminated product, soil, water may be RCRA and 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.

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#### SECTION 10 - SPECIAL PROTECTION INFORMATION

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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: Chemical safety goggles.

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

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**SECTION 11 - SPECIAL PRECAUTIONS**

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**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.

Unless inhibited, product can polymerize, raising temperature and pressure, possibly rupturing container. Check inhibitor content often, adding to bulk liquid if needed. Do not blanket or mix with oxygen free gas as it renders inhibitor ineffective. Do not store at or below 32EF, inhibitor can separate as a solid.

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

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**SECTION 12 - ENVIRONMENTAL INFORMATION**

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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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None.

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

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THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

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).

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).

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

Silicon Dioxide- Acute Hazard  
TMPTA - Reactive Hazard

The components of this product are included on the TSCA Chemical Substance Inventory.

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**SECTION 13 - OTHER INFORMATION**

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Revision Date 6/30/11

Revision Note: Review and reissue

Prepared by: Craig Moore

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

N/E = Not established

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