MATERIAL SAFETY DATA SHEET
POLYGARD HR DLC®-A

Date of Revision: July 12, 2007

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME: Polygard HR DLC-A
CHEMICAL NAME: Tri (nonylated phenyl) phosphite, silicon-dioxide blend.

HMIS RATING	
HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

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

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)

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT NAME	CAS#	PERCENT
Tris(nonylphenyl) phosphite	26523-78-4	72
Silicon Dioxide	112926-00-8	28
Contains no detectable crystalline silica (detection limit <0.01% by weight).		
1,1',1"-Nitrilotripropan-2-ol	122-20-3	<=1.4

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION! May cause irritation.

EYE: Avoid contact with eyes, may cause irritation and pain. Symptoms include stinging, tearing, and redness.
SKIN: Avoid prolonged, repeated, or excessive contact with skin, may cause sensitization, irritation and discomfort.
INGESTION: N/DA
INHALATION: Avoid prolonged or repeated inhalation of dust, may irritate the respiratory tract.

4. FIRST AID MEASURES

INHALATION: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

EYE/SKIN CONTACT: In case of contact, immediately flush eyes and skin with plenty of water (soap and water on skin) for at least 15 minutes. Get medical attention if irritation persists.

INGESTION: Not a likely route of exposure.

NOTES TO PHYSICIAN: Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLASH POINT: 140°C (285°F)

EXTINGUISHING MEDIA: CO_2, dry chemical, alcohol-type foam or universal-type foams.

SPECIAL FIREFIGHTING PROCEDURES: Do not discharge extinguishing waters into streams, rivers and lakes.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Wear suitable protective equipment. Avoid contact with skin and eyes. Prevent from entering sewer system, surface water or soil. Sweep up spills, collect for disposal. Observe government regulations.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:
Store in a dry area. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Product surface alterations caused by calcining or mixing with additives may alter toxicological properties. Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:
8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL)

OSHA: 6 mg/m^3 (total dust) TWA. 29 CFR 1910.1000

ACGIH: 10 mg/m^3 (total amorphous dust) TWA. 3 mg/m^3 (respirable nuisance particulate) TWA.

RESPIRATORY PROTECTION: Use NIOSH approve dust filter respirator for exposure above permissible exposure limits. The respiratory use limitations made by NIOSH or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

VENTILATION: General or local exhaust sufficient to maintain employee exposure below permissible exposure limits.

EYE AND FACE PROTECTION: If eye exposure to powder is likely, use tight fitting protective goggles.

PROTECTIVE GLOVES: Cloth. Leather. Rubber - chemical resistant.

OTHER PROTECTIVE EQUIPMENT: Boots, apron, or chemical suits should be used when necessary to prevent skin contact. Personal protective clothing and use of equipment must be in accordance with 29 CFR 1910.132 (general requirements), .133 (eye and face protection), and .138 (hand protection).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A
VAPOR DENSITY (Air=1): N/A
SPECIFIC GRAVITY (Water = 1): 1.15
FREEZING/MELTING POINT: N/A
SOLUBILITY (wt. % in water): Insoluble in water
% VOLATILE:
VAPOR PRESSURE: N/D
EVAPORATION RATE:
PHYSICAL STATE: Free-flowing powder
ODOR: Phenolic
COLOR: Off-White to pale amber.

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage and handling conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (CONDITIONS TO AVOID): High temperatures (>800°C) treatment (calcining). Avoid alteration of product properties before use. Calcining, which may result in crystalline formation, or mixing with additives may alter toxicological properties.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:
None known.

11. TOXICOLOGICAL INFORMATION

ACUTE INHALATION LC50: Nuisance dust
ACUTE DERMAL LD50: N/A
SKIN IRRITATION: Mildly irritating.
EYE IRRITATION: Mildly irritating.
ACUTE ORAL LD50: Estimated >5 g/kg. Not significantly toxic.

CHRONIC EFFECTS/CARCINOGENICITY: This product is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

MEDICAL CONDITIONS AGGRAVATED: None known.

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 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 bee 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 of duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation to levels of precipitated silica dust of up to 126 mg/m^3 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 the studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silicas.

PPG recommends that person with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION – SILICON DIOXIDE:

EC_0: >1000 ppm (Daphnia magna) (24-hour acute immobilization test)
EC_0: >10,000 ppm (rainbow trout) (4-day static study)
EC_0: >10,000 ppm (freshwater fish (96-hour static acute toxicity study)

ECOTOXICOLOGICAL INFORMATION – Tris(nonylphenyl) phosphite:
EC_0: > 7.1 mg/l (Brachydanio rerio) (96 h)
EC_0: > 100 mg/l (Acute algae & bacteria toxicity)
EC_0: > 0.42 mg/l (Daphnia magna) (48 h)

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
Waste from this product may be disposed of in a sanitary landfill if state and local regulations permit. Care should be taken to avoid creation of dust during disposal operations.

14. TRANSPORT INFORMATION

USA DOT DESCRIPTION:
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Class: 9
UN ID#:UN3077
Packing Group: III
Marine Pollutant: Marine Pollutant

IMDG CLASSIFICATION:
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Class: 9
Subsidiary risk: Marine Pollutant

UN ID#:UN3077
Packing Group: III
Marpol: Marine Pollutant

ICAO CLASSIFICATION:
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s.
Class: 9
UN ID#:UN3077
Packing Group: III

15. REGULATORY INFORMATION

USA TSCA: The ingredients of this product are listed on the TSCA inventory. Silicon dioxide is listed on the TSCA Inventory as its general CAS# 7631-86-9.
EINECS: The ingredients of this product are listed on the EINECS inventory. Silicon dioxide is listed on EINECS (231-545-4) as its general CAS# 7631-86-9
CANADA DSL: The ingredients of this product are listed on the are listed on the DSL.
AUSTRALIA AICS: The ingredients of this product are listed on the AICS.
KOREA ECL: The ingredients of this product are on the ECL.
JAPAN MITI (ENCS): The ingredients of this product are listed on the MITI.
PHILIPPINES PICCS: The ingredients of this product are listed on the PICCS.

15. REGULATORY INFORMATION, Cont'd.

SARA TITLE III:
SARA (311,312) Hazard Class: Silicon Dioxide – Acute Health Hazard.
SARA (313) Chemicals: Not listed.
SARA Section 302: Not listed as an Extremely Hazardous Substance.

FDA

Food Contact
21CFR175.125 Pressure Sensitive Adhesives. 21CFR175.300 Resinous and Polymeric Coatings 21CFR175.390 Zinc-silicon dioxide matrix coatings. 21CFR177.1210 Closures with Sealing Gaskets for Food Containers 21CFR177.2600 Rubber Articles Intended for Repeated Uses 21CFR178.2010 Antioxidants and/or Stabilizers for Polymers.

16. OTHER INFORMATION

Revision date: July 12, 2007 Replaces revision dated: May 7, 2004
Revision Note: Updated TSCA wording in section 15..
Prepared by: Craig Moore

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