



Material Safety Data Sheet

Shroud II

Date Prepared: 12/10/04

Supersedes Date: 2/27/03

1. PRODUCT AND COMPANY DESCRIPTION

United Suppliers, Inc.

Box 538

Eldora, IA 50627

Emergency Phone Numbers:

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT
CONTACT: CHEMTREC (800-424-9300 within the United States)

For Product Information:

(800) 782-5123

Chemical Name or Synonym:

DERIVATIZED NATURAL POLYMER

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Reg Number	OSHA Hazard	Percentage
DERIVATIZED NATURAL POLYMER/INERTS	*****	N	93
BUFFER	497-19-8	Y	7
DIOXANE	123-91-1	Y	0.0002
ETHYLENE OXIDE	75-21-8	Y	0.0003

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

yellow granules solid, faint odor.

Warning Statements:

WARNING!! EYE IRRITANT. MAY CAUSE ALLERGIC RESPIRATORY REACTION.

B. POTENTIAL HEALTH EFFECTS:

Acute Eye:

Irritant. May cause redness, tearing.

Acute Skin:

Non-irritating. Low acute dermal toxicity.

Acute Inhalation:

Some individuals may develop a respiratory allergenic response.

Acute Ingestion:

Practically non-toxic.

Chronic Effects:

This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens. Raw Guar contains natural proteins that can cause allergic reactions such as asthma and rhinitis. derivatized guar, such as this product, contains far less protein and therefore has a much lower risk of sensitization.

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL:

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention if irritation develops or persists or if visual changes occur.

Skin Exposure:

In case of contact, wash with plenty of soap and water. Seek medical attention if irritation develops or persists.

Inhalation:

Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

Ingestion:

If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention. Do not leave victim unattended.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this

Treat symptomatically. No specific antidote available.

FIRE HAZARD DATA:

> 93 C (200 F). Flammability Class: WILL BURN.

Setaflash Closed Cup

Flammability Limits (vol/vol%):	Lower:	Upper:
	No Data	No Data

Recommended (small fires): carbon dioxide, dry chemical, Recommended (large fire): water, aqueous foam.

Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing.

Product will burn under fire conditions. Like all organic and most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.

- oxides of sodium
- oxides of carbon

Explosibility Index:	0.01 to 0.02 Type of Explosion is Rated WEAK.
Ignition Sensitivity:	< 0.1
Explosion Severity:	< 0.7
Cloud Ignition Temp:	510 C (950 F)
Min Cloud Ignition Energy:	840 milliJoules
Layer Ignition Temp:	199 C (390 F)
Max. Explosion Pressure:	No Data
Max. Rate of Pressure Rise:	No Data
Min. Explosion Concentration:	0.29 oz/ft3

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety:

CAUTION: Spilled material may become slippery when wet. Do not leave traces of product on floors, ladders, etc., as this may present a slipping hazard. Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Containment of Spill:

Follow procedure described below under Cleanup and Disposal of Spill.

Cleanup and Disposal of Spill:

Dry Material: Sweep up and place in an appropriate closed container (see Section 7: Handling and Storage). Wet Material: Absorb with an inert absorbent. Shovel up into an appropriate closed container (see Section 7: Handling and Storage).

Environmental and Regulatory Reporting:

Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperatures:

< 43 C (109 F)

Handling:

Avoid breathing dusts.

THIS PRODUCT MAY PRESENT A DUST EXPLOSION HAZARD. It is recommended that all dust control equipment and material transport systems involved in handling of this product contain explosion relief vents or explosion suppression system or an oxygen deficient environment. In addition, all conductive elements of the system that contact this material should be electrically bonded and grounded. This powder should not be flowed through non-conductive ducts or pipes. Use only appropriately classed electrical equipment.

Storage:

Store in closed containers. Store in an area that is dry, well-ventilated, away from ignition sources, away from incompatible materials (see Section 10. Stability and Reactivity).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the

need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines:

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements. The following limits apply to this material, where, if indicated, S=skin and C=ceiling limit:

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION

	Notes	TWA	STEL
OSHA		5 mg/cu m	

PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST

	Notes	TWA	STEL
OSHA		15 mg/cu m	

Engineering Controls:

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: wet processing methods to reduce dust generation.

Respiratory Protection:

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by the appropriate OSHA, WHMIS or ANSI standard(s): Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against dusts, mists and fumes.

Eye/Face Protection:

Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.

Skin Protection:

Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.

Work Practice Controls:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- (1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- (2) Wash hands and face carefully before eating, drinking, using tobacco, applying

- cosmetics, or using the toilet.
- (3) Wash exposed skin promptly to remove accidental splashes or contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for its exact specifications.

Physical Appearance:

yellow granules solid.

Odor:

faint odor.

pH:

9.5 to 10.5 at 1 wt/wt%.

Specific Gravity:

Not Available

Density:

0.35 g/ml at 25 C (77 F).

Water Solubility:

gels

Melting Point Range:

Not Available

Boiling Point Range:

Not Available

Vapor Pressure:

Not Available

Vapor Density:

Not Available

Evaporation Rate:

< 1 (Butyl Acetate = 1)

Percent Non-Volatiles by Weight:

95

Viscosity:

viscosity (centipoises) : 1500 to 3500 cps at 25 C (77 F).

10. STABILITY AND REACTIVITY

Chemical Stability:

This material is stable under normal handling and storage conditions described in Section 7.

Conditions To Be Avoided:

dusting conditions
extreme heat
open flame
spark
static electricity

Materials/Chemicals To Be Avoided:

strong bases
strong oxidizing agents
strong reducing agents

Decomposition Temperature Range:

60 C (140 F)

The Following Hazardous Decomposition Products Might Be Expected:**Decomposition Type: thermal**

oxides of sodium
oxides of carbon

Hazardous Polymerization Will Not Occur.**Avoid The Following To Inhibit Hazardous Polymerization:**

not applicable

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation:**Toxicological Information and Interpretation:**

eye - eye irritation, rabbit.

Acute Skin Irritation:**Toxicological Information and Interpretation:**

skin - skin irritation, rabbit.

Acute Dermal Toxicity:**Toxicological Information and Interpretation:**

LD50 - lethal dose 50% of test species, > 2000 mg/kg, rabbit.

Acute Respiratory Irritation:

No test data found for product.

Acute Inhalation Toxicity:**Toxicological Information and Interpretation:**

LC50 - lethal concentration 50% of test species, > 2.268 mg/l/4 hr, rat.

Acute Oral Toxicity:**Toxicological Information and Interpretation:**

LD50 - lethal dose 50% of test species, > 5000 mg/kg, rat.

Chronic Toxicity:

This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

No additional test data found for product.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

No data found for product.

Chemical Fate Information:

No data found for product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Container Handling and Disposal:

Any containers or equipment used should be decontaminated immediately after use.

EPA Hazardous Waste - NO

14. TRANSPORTATION INFORMATION

Transportation Status: IMPORTANT! Statements below provide additional data on listed DOT classification.

The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

US Department of Transportation
Shipping Name:
NOT REGULATED

15. REGULATORY INFORMATION

FEDERAL REGULATIONS

SARA Title III Hazard Classes:

Fire Hazard	- NO
Reactive Hazard	- NO
Release of Pressure	- NO
Acute Health Hazard	- YES
Chronic Health Hazard	- NO

STATE REGULATIONS:

This product contains the following components that are regulated under California Proposition 65:

Ingredient Name	Cancer List	Reprod. List	No Sign. Risk Lvl (ug/day) California	RPI
DIOXANE	Y	N	30	ND
ETHYLENE OXIDE	Y	Y	2	ND

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings--NFPA(R):

2	Health Hazard Rating--Moderate
1	Flammability Rating--Slight
0	Instability Rating--Minimal

National Paint & Coating Hazardous Materials Identification System--HMIS(R):

2	Health Hazard Rating--Moderate
1	Flammability Rating--Slight
0	Reactivity Rating--Minimal

Reason for Revisions:

Regulatory Review and Update.

Key Legend Information:

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
STEL - Short Term Exposure Limit
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer
ND - Not determined
RPI - Rhodia Established Exposure Limits

Disclaimer:

The information herein is given in good faith but no warranty, expressed or implied, is made.

**** End of MSDS Document ****