



**Material Safety Data Sheet**

**NDT POLYSTARCH**

Gurtler Industries, Inc.  
15475 South LaSalle Street  
South Holland, IL 60473  
(708) 331-2550  
(800) 638-7300

In Case Of Emergency (24 hours)  
INFOTRAC (800) 535-5053

For Information  
(708) 331-2550

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**SECTION 1 - IDENTIFICATION**

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COMPANY NAME: Gurtler Industries, Inc.  
15475 South LaSalle Street  
South Holland, IL 60473  
708-331-2550  
PHONE NUMBER:  
EMERGENCY NUMBER: INFOTRAC (800) 535-5053 - 24 Hours Everyday  
EFFECTIVE DATE: 8/14/01  
PREPARED BY: Justin Yohn  
TRADE NAME: NDT Polystarch  
CHEMICAL NAME: Vinyl Acetate Polymer Emulsions in water  
CHEMICAL FAMILY: Polyvinyl Acetate Emulsions

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**SECTION 2 - INGREDIENT INFORMATION**

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OSHA HAZARDOUS COMPONENTS (29CFR1910.1200)	CAS REGISTRY NO.	PEL (OSHA)	TLV (ACGIH) (Units)	HAZARDOUS %
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Product is a stable dispersion of very small polymer particles in water. Emulsion contains formaldehyde at concentrations below 0.1% by weight. No other photochemically-reactive solvents or reactive chemical solvents are added. Solids content is 30-65% by weight which consists of polymer, surfactant and/or hydrocolloid stabilizers and minor amounts of inorganic salts.

The solid portion is combustible and will decompose under pyrolysis conditions. Residual unpolymerized monomer levels are less than 0.5% of the total product.

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**SECTION 3 - HEALTH HAZARD DATA**

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**EMERGENCY OVERVIEW**

Appearance and Odor ..... Light blue, milky liquid with a pleasant odor.

The principal volatile component is water. Minor volatile components are formaldehyde and vinyl acetate. Both minor components will migrate from the emulsion and establish an equilibrium condition in the headspace between the storage container and the liquid emulsion. Levels in excess of the TLV's (1 ppm for formaldehyde, 10 ppm for vinyl acetate) can accumulate in non-vented headspaces above stored emulsion. Care must be exercised to vent headspace of storage tanks with humidified air. Drums should be opened in a well ventilated space.

The Threshold Limit Value (TLV) for vinyl acetate is 10 ppm time Weighted Average (TWA), 8 hours American Conference of Government Industrial Hygienists (ACGIH) and for formaldehyde is 1 ppm TWA, 8 hours (ACGIH). The OSHA PEL for formaldehyde is 1 ppm and the STEL is 2 ppm for any 15 minute period. Under normal conditions of use in well-ventilated areas, the concentration of minor components in the workplace air will not exceed the TLV or PEL and are not subject to the warning (label) requirements for the OSHA Hazard Communication Standard (29CFR1910.12000).

For Vinyl Acetate, OSHA PEL TWA 10 ppm, 30 mg/m<sup>3</sup>; OSHA PEL STEL 20 ppm, 60 mg/m<sup>3</sup>.

Although formaldehyde is a minor volatile component of these emulsion products, it is important to recognize that recent test results have shown formaldehyde to cause nasal cancer in laboratory animals.



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Formaldehyde is readily detected due to its irritant properties. The odor detection level varies among different individuals between 0.2 to 1 ppm. In addition, acclimation will occur from repeated exposure but sensitivity returns following rest periods away from the atmospheres containing formaldehyde. Whether a risk exists at levels below the odor threshold has not been determined.

This product may contain small amounts of vinyl acetate, vapors of which have been shown to cause tumors of the respiratory tract of laboratory animals. There is no evidence that it has caused cancer in humans.

There are no known symptoms of ingestion.

Medical conditions aggravated by overexposure: May provoke asthmatic response in persons with asthma who are sensitive to airway irritants.

Target organs: Upper respiratory tract.

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### **SECTION 4 - FIRST AID MEASURES**

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Wash the skin with water and soap. If splashed in the eye, flush with copious quantities of water and seek medical advice.

Small ingested amounts are not believed to produce adverse health effects. Larger amounts (at least several ounces) should be removed from the stomach by induced vomiting or aspiration. No adverse health effects are anticipated. Call a physician.

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### **SECTION 5 - FIREFIGHTING MEASURES**

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Flash Point ..... None  
Flammable Limits ..... N/A  
Lower Flame Limit ..... N/A  
Higher Flame Limit ..... N/A  
Extinguish Media ..... For dry polymer, use water or carbon dioxide.  
Special Procedures ..... When dried polymer burns, water (H<sub>2</sub>O) carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO) and smoke are produced. Pyrolysis products may include such materials as acetic acid, acrolein and acetaldehyde.  
Unusual Fire Hazards..... There are no unusual fire or explosion hazards.

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### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

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For Spill ..... Dam up to limit spreading. Mop up or absorb on inert material and place in containers. If spill occurs in enclosed area, ventilate. Polymer may be separated from water by the procedure indicated below. *NOTE:* Spilled emulsion is very slippery. Use care to avoid falls. Latex will leave a film on drying. Remove saturated clothing and wash contacted skin areas with soap and water.  
Waste Disposal Method ..... For small spills (probably less than 100 gallons), dilute 50 to 100 fold with water. Wash into industrial sewer. (WARNING: consult local sewer authority before discharging.) For large quantities, place in settling pond and add ferric chloride and lime. Decant water. Dispose of solids in landfill. Emulsion can be incinerated directly under appropriate conditions. *CARE:* The products will impart a white milky color to water. When the water is agitated or is turbulent, foaming can result. As supplied or diluted, product material (foam included) when splashed on automobiles or other personal property is difficult to remove if allowed to dry.

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### **SECTION 7 - RECOMMENDED EMERGENCY PROCEDURE TO MINIMIZE ENVIRONMENTAL IMPACT**

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Spills should be contained and cleaned up expeditiously. Automobiles or other personal property should be washed quickly before the material dries. With approval from the municipal sewage authority, or water pollution agency, small quantities of spilled material can be disposed of in an industrial sewer at very low concentrations. Municipal sewage treatment plants may not remove the white color imparted to the water by the emulsions.

Chemical coagulation of diluted emulsion is accomplished by the addition of ferric chloride and lime, maintaining a pH of 8 and mixing slowly. The settled sludge can be disposed of in approved landfill sites. Consult manufacturer for detailed procedure. A non-toxic biodegradable anti-foam agent such as Nalco D71-D5, or equivalent, can be used for eliminating foam.



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All federal, state and local regulations regarding health and pollution should be followed when disposing of contaminated water or recovered material.

Dike spills. A large quantity of material spilled in the presence of rainfall could cause the spill to travel long distances or reach waterways. Once emulsion is spilled into water, methods of removal or neutralization can cause more harm to the aquatic system than if no action is taken.

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### **SECTION 8 - PERSONAL PROTECTION**

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Ventilation ..... Provide sufficient ventilation to maintain airborne concentrations below the exposure guideline.  
Eye Protection ..... Use safety goggles when splash potential exists.  
Hand Protection..... Rubber protective gloves are recommended.

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### **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

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Boiling Point .....	100°C	Melting Point.....	N.D.
Volatility/Vol (%) .....	35-70	Vapor Density (Air=1) .....	Of water
Solubility in H <sub>2</sub> O .....	Water miscible	Specific Gravity (H <sub>2</sub> O=1) .....	1.090
pH of product.....	4-5.5	Vapor Pressure (mm Hg).....	of water

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### **SECTION 10 – SPECIAL PRECAUTIONS AND LABEL INFORMATION**

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Normal cleanliness should be observed. Store in a cool place, avoid freezing, minimize contact with air to prevent inoculation with microorganisms which can cause decomposition and moldy overgrowth.

If headspace ventilation is required, use humidified air to reduce skin formation on the emulsion surface.

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### **SECTION 11 - OTHER INFORMATION**

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The products are not restricted articles according to Department of Transportation and International Air Transport Association regulations.

All components are included in the EPA Toxic Substance Control Act Chemical Substance Inventory.

H.M.I.S.	Health:	1
	Flammability:	0
	Reactivity:	0

**For help in a chemical transportation emergency, call INFOTRAC: 1-800-535-5053**

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