

MATERIAL SAFETY DATA SHEET

A Product Of: Date: 1-1-2005
Arrow Paper Corporation Ref. No.: Starch
P.O. Box 1001 Telephone: 1-888-622-7769
Wilmington, MA 01882 Contact: James Brangwynne

SECTION I - PRODUCT IDENTIFICATION

Trade Name: Ultra Starch Plus

Chemical name / synonyms: Starch

Formula: Mixture

D.O.T.: Non hazardous, no UN Number is required

HMIS CODE: Health 1, Fire 0, Reactivity 0

HMIS KEY: 4=Extreme, 3=High, 2=Moderate, 1=Slight, 0=insignificant

SECTION II - HAZARDOUS INGREDIENTS

Substance	% Composition	TLV
Vinyl Acetate	<0.5%	10 ppm
Formaldehyde	<0.1%	1ppm

SECTION III - PHYSICAL DATA

Boiling Pt (°C): NA	Specific Gravity: 1.00
Vapor Pressure(mm Hg): NA	Voc (% wt): NA
Vapor Density (air=1): NA	Evaporation Rate (water=1): 1
Solubility in water: Complete	pH: NA
Appearance and Odor: White Liquid, Sweet Smell	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Pt (°F): None Flammable limits in air (vol%)
test method: tables Upper: NA Lower: NA

Extinguishing Media: As necessary for surrounding fire.

Special fire fighting procedures: NA

Unusual fire and explosion hazard: none

SECTION V - HEALTH HAZARD DATA - ROUTES OF ENTRY

Threshold Limit Value: See Section II

Primary Route(s) of Entry: Eye contact. Skin Contact. Inhalation of mist if sprayed.

Health Hazard (Acute and Chronic): This product should be handled as possibly irritating to eyes.

Signs And Symptoms Of Overexposure: EYES- Contact may be painful and irritating. SKIN- Acute exposure is irritating. Non Corrosive to Skin: (as defined and tested in accordance with the U.S. OSHA's Hazard Communication Standard, DOT Hazardous Material Regulations, Canada's WHMIS regulations and TDG regulations. Classified as a mild skin irritant as per the 1992 OECD Guideline for Testing of Chemicals, Number 404 "Acute Dermal Irritation/Corrosion.") INHALATION- Can be irritating to the respiratory

tract if inhaled as a mist or if the material is vaporized. INGESTION- This product may be harmful or fatal if ingested.

Conditions Generally Recognized As Being Aggravated By Exposure: Persons with pre-existing skin disorders may be more susceptible to irritating effects. Persons with pre-existing lung disorders may be more susceptible to irritating effects.

Emergency And First Aid Procedures: EYES- Immediately flush with plenty of cool water for at least 15 minutes. Seek medical attention. SKIN- Immediately remove contaminated clothing and flush area with large quantities of water for at least 15 minutes. Launder clothing before reuse. Contact a physician if irritation develops. INGESTION- If patient conscious, give several glasses of water for dilution effect and contact a physician. Do not induce vomiting. Do not give an unconscious person anything by mouth. INHALATION- Remove from contaminated atmosphere. If breathing has stopped, give artificial respiration then oxygen if needed. Contact a physician.

SECTION VI - REACTIVITY DATA

Stability: stable to 110°C / 230°F

Conditions to avoid: Heating above 110°C results in an exothermic decomposition with rapid release of CO₂ gas.

Incompatible Materials: Avoid contact with oxidizers. This material may be extremely hazardous in contact with chlorates or nitrates. This material is acidic. Contact with hypochlorites (e.g. chlorine bleach, sulfides, or cyanides will liberate toxic gasses. Contact with alkaline materials (e.g. aqua ammonia) will generate heat.

Hazardous decomposition products: carbon monoxide and unidentified organic compounds may be formed during combustion.

Hazardous polymerization products: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURE

Steps to be taken if material is released or spilled: Large spills: Dike and contain. Place in non leaking containers for disposal agency. Small spills: soak or mop up. Small spills may be flushed to sewer. Floor may become slippery.

Waste disposal method: Small quantities will evaporate readily. Large amounts should be given to licensed disposal agency.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: NIOSH approved respirator

Ventilation -local exhaust: recommended -mechanical exhaust: recommended

Protective gloves: rubber

Eye protection: chemical goggles if contact is likely.

Other protective equipment: none

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store above 35°F. Keep container tightly closed when not in use.

Other precautions: KEEP OUT OF REACH OF CHILDREN.

NA refers to NOT APPLICABLE on this form.

This Material Safety Data Sheet was prepared to comply with the OSHA Hazardous Communication Regulation and Massachusetts Right to Know Law.

The information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application which is not described on the label or in the Product Data Sheet is the responsibility of the user.