MSDS Number: \$6506 \* \* \* \* \* Effective Date: 08/10/04 \* \* \* \* Supercedes: 11/02/01



From: Mallinckrodt Baker, Inc. 222 Red School Lane Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151 CHEMTREC: 1-800-424-9300

National Response in Canada

CANUTEC: 613-996-6666

Outside U.S. and Canada Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# STARCH SOLUBLE

### 1. Product Identification

Synonyms: Amglogen; Amylodextrin; Potato starch

CAS No.: 9005-84-9

**Molecular Weight:** Not applicable to mixtures.

Chemical Formula: (C6H10O5) x

**Product Codes:** 

J.T. Baker: 4006, 4010 Mallinckrodt: 8188

## 2. Composition/Information on Ingredients

Ingredient Hazardous	CAS No	Percent
Starch Soluble Yes	9005-84-9	90 - 100%

## 3. Hazards Identification

**Emergency Overview** 

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

#### **J.T. Baker SAF-T-DATA**(tm) Ratings (Provided here for your convenience)

\_\_\_\_\_\_

Health Rating: 0 - None

Flammability Rating: 1 - Slight Reactivity Rating: 0 - None Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT Storage Color Code: Orange (General Storage)

#### **Potential Health Effects**

-----

#### **Inhalation:**

Symptoms similar to those caused by nuisance dust; coughing, sneezing.

#### **Ingestion:**

Not expected to be a health hazard.

#### **Skin Contact:**

No adverse effects expected.

#### **Eye Contact:**

No adverse effects expected but dust may cause mechanical irritation.

#### **Chronic Exposure:**

No adverse effects expected.

#### **Aggravation of Pre-existing Conditions:**

Persons with respiratory impairment may be sensitive to starch dust.

### 4. First Aid Measures

#### **Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

#### **Ingestion:**

If large amounts were swallowed, give water to drink and get medical advice.

#### **Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

#### **Eye Contact:**

Wash thoroughly with running water. Get medical advice if irritation develops.

### 5. Fire Fighting Measures

#### Fire:

Autoignition temperature: > 380C (> 716F)

Combustible solid.

Minimum ignition energy > 30 m (Depends on particle size, moisture content, etc.) Contact with strong oxidizers may cause fire.

#### **Explosion:**

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Minimum ignition temperature, cloud: 430C (806F).

#### Fire Extinguishing Media:

If involved in a fire, use water spray.

#### **Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

## 7. Handling and Storage

Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities.

## 8. Exposure Controls/Personal Protection

#### **Airborne Exposure Limits:**

-OSHA Permissible Exposure Limit (PEL):

15 mg/m3 total dust, 5 mg/m3 respirable fraction

-ACGIH Threshold Limit Value (TLV):

10 mg/m3 total dust containing no asbestos and < 1% crystalline silica

#### **Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

#### **Personal Respirators (NIOSH Approved):**

If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

#### **Skin Protection:**

Wear protective gloves and clean body-covering clothing.

#### **Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

# 9. Physical and Chemical Properties

A	p	p	ea	ra	n	ce	:
---	---	---	----	----	---	----	---

White, amorphous powder or granules.

Odor:

Slight characteristic odor.

**Solubility:** 

Dispersible in hot water.

**Specific Gravity:** 

ca. 1.5

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

**Boiling Point:** 

Not applicable.

**Melting Point:** 

No information found.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

**Evaporation Rate (BuAc=1):** 

No information found.

## 10. Stability and Reactivity

#### **Stability:**

Stable under ordinary conditions of use and storage.

### **Hazardous Decomposition Products:**

Heavy, black acrid smoke.

**Hazardous Polymerization:** 

Will not occur.

**Incompatibilities:** 

Strong oxidizers.

**Conditions to Avoid:** 

Heat, flames, ignition sources and incompatibles.

# 11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

\Cancer Lists\			
NTP Carcinogen			
Ingredient	Known	Anticipated	IARC Category
Starch Soluble (9005-84-9)	No	No	None

# 12. Ecological Information

**Environmental Fate:** 

No information found.

**Environmental Toxicity:** 

No information found.

### 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

# 14. Transport Information

Not regulated.

# 15. Regulatory Information

	\Chemical Inventory Status - Part Ingredient		TSCA	EC		 Australia	
Υe	Starch Soluble (9005-84-9)			Yes	No		
	\Chemical Inventory Status - Part 2\						
	Ingredient			a DSL	NDSL	Phil.	
	Starch Soluble (9005-84-9)			Yes	No	Yes	
\Federal, State & International Regulations - Part 1\SARA 313							
	Ingredient	RQ	TPQ	Li	st Che	mical Catg.	
	Starch Soluble (9005-84-9)	No					
	\Federal, State & International Re	gulati	ons -				
	Ingredient	CERCLA		261.3	-RCRATSCA- 261.33 8(d)		
	Starch Soluble (9005-84-9)	No		no	 N	0	

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No

Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the

MSDS contains all of the information required by the CPR.

### 16. Other Information

NFPA Ratings: Health: 0 Flammability: 2 Reactivity: 0

**Label Hazard Warning:** 

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

**Label Precautions:** 

None.

**Label First Aid:** 

Not applicable.

**Product Use:** 

Laboratory Reagent.

**Revision Information:** 

No Changes.

**Disclaimer:** 

\*

Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

**Prepared by:** Environmental Health & Safety Phone Number: (314) 654-1600 (U.S.A.)