



# NATIONAL™ 77-1760 32566101

National™ 77-1760 modified food starch is a high performance, cold water swelling (CWS) derived from waxy maize. It is designed for use in dysphagia applications and has excellent dispersion properties in liquids. It is highly resistant to harsh processing conditions and exhibits excellent viscosity in hot and cold systems. This product is available under Ingredion Incorporated's TRUETRACE® Identity Preserved Program for non-GM products.

## Chemical and Physical Properties

	Min.	Max.
Moisture, %	-	12.0
pH (9% w/w slurry)	4.8	7.0
Viscosity (CML-Brookfield-M693), cps	400	-
Viscosity (CML-M504)		
15 min, MVU	320	500
End, MVU	300	500

## Physical Appearance

	Typical
Color	White to Off-White
Form	Coarse Powder

## Screen Test

	Typical
% on U.S.S. #20	<3
% thru U.S.S. #100	<10

## Microbiological Limits

	Max.
Total Plate Count/g	10,000
Yeast/g	200
Mold/g	200
<i>E. coli</i>	Negative
<i>Salmonella</i>	Negative

## Nutritional Data/100 g

	Typical
Calories	365
Calories from fat	0
Total Fat, g	<0.1*
Cholesterol, mg	0
Sodium, mg	153
Total Carbohydrate, g	91.2
Dietary Fiber, g	0
Total Sugars, g	<0.1*
Added Sugars, g	0
Other Carbohydrate, g	91.2
Protein, g	<0.1*
Vitamin D, mcg	0
Calcium mg	5
Iron, mg	<0.2*
Potassium, mg	<10*
Ash, g	<0.1*

\* Not present at level of quantification.

## Certification

Kosher pareve  
Halal

## Packaging and Storage

NATIONAL™ 77-1760 modified starch is packaged in multi ply kraft paper bags with a net weight of 50 lbs. NATIONAL™ 77-1760 modified starch should be stored in a clean, dry area at ambient temperature and away from heavily aromatic material.

## Shelf Life

The best before date for NATIONAL™ 77-1760 modified starch is 24 months from the date of manufacture.

## Regulatory Data

Source Waxy Maize

## United States

Meets FCC (Food Chemical Codex) requirements.  
Labeling Food Starch-Modified

## Canada

CFDA Regulation B.16.100, Table XIII  
Labeling Modified Corn Starch

## Features and Benefits

National™ 77-1760 modified starch disperses easily in hot and cold water, milk, juice and coffee without lumping and yields a short texture. The increased viscosity improves swallowing characteristics and can be used to prevent aspirations of liquids by dysphagia patients.

This product is extremely resistant to harsh processing conditions including intense heating (microwaving), high shear (milling), or low pH. National™ 77-1760 modified starch imparts a rich, creamy mouth feel to prepared food. It also offers excellent cold temperature storage stability to refrigerated or frozen foods.

This product is available under Ingredion Incorporated's TRUETRACE® Identity Preserved Program for non-GM products.

Effective Date: November 20, 2018

Next Review Date: November 20, 2021

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