



# SAFETY DATA SHEET

N-DULGE® CA1

## 1. Identification

### Product identifier used on the label:

PRODUCT NUMBER (NEW): 10903303  
PRODUCT NUMBER (OLD): 50-1812  
PRODUCT NAME: N-DULGE® CA1  
maltodextrin

### Other means of identification

Chemical family: Modified Starch

### Recommended use of the chemical and restrictions on use

Recommended use: Food products  
Restrictions on use: Not Available

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

#### Emergency phone number:

Ingredion Incorporated  
5 Westbrook Corporate Center  
Westchester, IL. 60154, USA  
Phone: 708-551-2600 (business hours)  
MEDICAL: 1-866-374-2659 (Health & Safety Call Center - 24 hours)  
TRANSPORT: 1-800-424-9400 (CHEMTREC - 24 hours)

## 2. Hazard(s) identification

### Classification of the chemical in accordance with paragraph (d) of §1910.1200

#### GHS Hazard

Symbols: No hazard symbols required

#### GHS Classification:

Combustible Dust Category 1

#### Signal Word:

Warning

#### Hazard Statements:

May form combustible dust concentrations in air.

#### Safety Precautions:

No Precautionary Statement needed.

#### Hazards not otherwise classified:

None known.

### 3. Composition/information on ingredients

Chemical Name:	CAS #	%
None classified as hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).		

### 4. First-aid measures

**Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion**

Inhalation:	Remove to fresh air. Get medical attention if irritation persists.
Eye Contact:	If symptoms develop, obtain medical attention. Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart.
Skin Contact:	Wash skin with soap and water.
Ingestion:	None required.
<b>Most important symptoms/effects, acute and delayed:</b>	Possible physical irritant from dust particles. Potential for dust explosion.
<b>Indication of immediate medical attention and special treatment needed, if necessary:</b>	No further first aid information is available.

### 5. Fire-fighting measures

**Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media:	Dry Chemical; CO2; Water Fog; Foam
Unsuitable extinguishing media:	None known.
<b>Specific hazards arising from the chemical:</b>	Minimum ignition temperature of dust cloud- approx. 390 C. Minimum explosive concentration- approx. 62 mg/l. Minimum energy to ignite cloud by electrical spark- approx. 0.045 joules.
Hazardous combustion products:	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.
<b>Special protective equipment and precautions for fire-fighters:</b>	No special procedures are required.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures:</b>	Use personal protective equipment as required.
<b>Methods and materials for containment and cleaning up:</b>	Normal precautions for "nuisance dust" should be observed. Avoid prolonged inhalation of dust. Sweep up or vacuum up and place in suitable container for disposal.

## 7. Handling and storage

**Precautions for safe handling:** As with all chemicals, good industrial hygiene practices should be followed when handling this material.

**Safe storage conditions**

Special Sensitivity: Not available

Sensitivity to Mechanical Impact: No

Impact:

Sensitivity to Static Electricity: Yes

Other Precautions: Use care to minimize dust generation in normal use conditions. Avoid dispersing the powder in the air. Prevent buildup of powder on surfaces.

**Materials to Avoid/Chemical Incompatibility:** None known

## 8. Exposure controls/personal protection

**OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:**

Chemical Component	OSHA PEL	ACGIH TLV-TWA	AIHA Exposure limits
No data available			

This product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m<sup>3</sup>.

**Appropriate engineering controls**

**Ventilation Requirements:** General.

**Individual protection measures, such as personal protective equipment.:**

**Eye Protection:** Safety glasses recommended.

**Skin Protection:** Gloves are not normally required for foreseeable conditions of use.

**Respiratory Protection:** NIOSH approved dust mask.

**Other Protective Equipment:** Not normally required.

**General Hygiene Conditions:** Wash before eating, drinking, or using toilet facilities.

**Change/Removal of Clothing:** Not applicable.

## 9. Physical and chemical properties

**Pure Substance or Mixture:** Pure  
**Physical state:** Powder.  
**Color:** White  
**Odor:** Starch  
**Odor Threshold:** Not available  
**Molecular Weight:** > 10000  
**pH:** Not applicable



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<b>pH in (1%) Solution:</b>	Approximately 6.5
<b>Melting Point (°C):</b>	Not available
<b>Initial boiling point and boiling range (°C):</b>	Not available
<b>Flash Point (°C):</b>	Not Applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Flammability (solid, gas):</b>	No
<b>Upper flammability or explosive limits:</b>	Not available
<b>Lower flammability or explosive limits:</b>	Not available
<b>Vapor pressure:</b>	Not available
<b>Vapor density:</b>	Not available
<b>Relative density:</b>	Not available
<b>Specific Gravity:</b>	1.5
<b>Solubility(ies) (in water):</b>	Soluble in water
<b>Partition coefficient: n-octanol/water:</b>	Not available
<b>Auto-ignition temperature (°C):</b>	No data available
<b>Decomposition temperature (°C):</b>	Not determined.
<b>Viscosity:</b>	Not available
<b>Volatiles:</b>	None
<b>Volatile Organic Chemicals:</b>	Not applicable

## 10. Stability and reactivity

<b>Reactivity:</b>	Not expected to be reactive
<b>Chemical stability:</b>	Stable
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization will not occur.
<b>Conditions to avoid (e.g., static discharge, shock, or vibration):</b>	None known.
<b>Incompatible materials:</b>	None known.
<b>Hazardous decomposition products:</b>	This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.

## 11. Toxicological information

<b>Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):</b>	Eye Contact, Skin Contact, Inhalation, Ingestion
<b>Symptoms related to the physical, chemical and toxicological characteristics:</b>	No data available



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Delayed and immediate effects and also chronic effects from short- and long-term exposure:

## Acute (Short Term) Effects of Exposure

**Effects of Acute Exposure** Unlikely to cause harmful effects under recommended conditions of handling and use.

## Chronic (Long Term) Effects of Exposure

**Effects of Chronic Exposure** This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.

**Target Organs** Not applicable.

Numerical measures of toxicity (such as acute toxicity estimates):

Has the chemical been classified as a Carcinogen by NTP, IARC or OSHA:

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
There are no components that are known or reported to cause cancer			

## 12. Ecological information

**Ecotoxicity (aquatic and terrestrial, where available):** No information available.

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** Unknown

**Other adverse effects (such as hazardous to the ozone layer):** None known.

## 13. Disposal considerations

**Waste Disposal Methods:** Disposal should be in accordance with local, state or national legislation.

**Empty Container Warnings:** Empty containers may contain product residue; follow SDS and label warnings even after they have been emptied.



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## 14. Transport information

**DOT Classification:** Not regulated  
**UN number:** Not Applicable  
**UN proper shipping name:** Not Applicable  
**Transport hazard class(es):** Not Applicable  
**Packing group, if applicable:** Not Applicable  
**Environmental hazards (e.g., Marine pollutant (Yes/No)):** No data available  
**Special precautions:** Consult IMO regulations before transporting in bulk by ocean.

## 15. Regulatory information

**TSCA Status:** This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.  
**FDA:** 21CFR184.1444

**SARA - Section 313 (Superfund Amendments and Reauthorization Act of 1986 - 40CFR 372)**  
CAS NUMBER CONCENTRATION  
(% by weight)

Contains no substances at or above the reporting threshold under Section 313.

### CALIFORNIA PROPOSITION 65

WARNING: This product contains the following chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.

Unless a concentration is specified in Section 2 of the SDS, the below chemical/s are present in trace amounts.

Component	CAS NUMBER
None reportable.	

## 16. Other information, including date of preparation or last revision.

### HMIS® Hazard Ratings

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs by OSHA's 29 CFR 1910.1200, we choose to provide them as a service to our customers using HMIS®. These ratings are to be used only with a fully implemented HMIS® program. To deal adequately with the safe handling of this material, all the information contained in this SDS must be considered. NPCA recommends that employers must determine appropriate PPE for the actual conditions under which this product is used in their workplace. For information on PPE codes, consult the HMIS® Implementation Manual. When two ratings are provided for Health, the first represents the material 'as supplied', and the second represents the material 'in use'. \* = chronic health hazard HMIS® is a registered trademark of the National Paint and Coatings Association (NPCA).

**Health**

1

**Flammability**

1

**Reactivity**

0



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**N-DULGE® CAI**

**Revision Date**

05-August-2021

**FOR INFORMATION CONTACT:**

For product information, contact:

Ingredion Incorporated

Customer Service:

1-800-713-0208

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