



SAFETY DATA SHEET

NATIONAL 104

1. Identification

Product identifier used on the label:

Product number: 12151301
Product name: NATIONAL 104

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:

Ingredion Incorporated
5 Westbrook Corporate Center
Westchester, IL. 60154, USA
Phone: 708-551-2600 (business hours)

Emergency phone number:

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.

Precautionary Statements:

No Precautionary Statement needed.

Hazards not otherwise classified:

None known.

3. Composition/information on ingredients

Chemical Name	CAS #	Concentration (% by weight)
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:	Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. If symptoms develop, obtain medical attention.
Skin Contact:	Wash skin with soap and water.
Ingestion:	None required.

Most important symptoms/effects, acute and delayed: Possible physical irritant from dust particles. Potential for dust explosion.

Indication of immediate medical attention and special treatment needed, if necessary: 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.

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products): 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.

Special protective equipment and precautions for fire-fighters: No special procedures are required.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment as required.

Methods and materials for containment and cleaning up: 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.

Conditions for safe storage, including any incompatibilities:

Safe storage conditions: Keep container closed when not in use.

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 Name	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/m3.

Appropriate engineering controls: General.

Individual protection measures, such as personal protective equipment:

Respiratory Protection: NIOSH approved dust mask.

Eye protection: Safety glasses recommended.

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

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

Other protective equipment: Not normally required. Not applicable.

General hygiene conditions: Wash before eating, drinking, or using toilet facilities.

9. Physical and chemical properties

Appearance (physical state, color etc.):

Pure Substance or Mixture: Pure

Physical state: Powder

Color: White

Odor: Starch

Odor Threshold: Not available

pH: Not available

pH in (1%) Solution:	Approximately 6
Melting point/freezing point:	
Melting Point (°C):	Not available
Freezing point (°C):	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	Not applicable
Evaporation Rate:	Not applicable
Flammability (solid, gas):	No
Upper/lower flammability or explosive limits:	
Upper flammability or explosive limits:	Not available
Lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	1.5
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable
Volatiles:	None
Volatile Organic Chemicals (VOC):	Not applicable

10. Stability and reactivity

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

11. Toxicological information

Description of the various toxicological (health) effects and the available data used to identify those effects:

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	Ingestion, Inhalation, Skin Contact, Eye Contact
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Target Organs Potentially Affected by Exposure: Not applicable.

Symptoms related to the physical, chemical and toxicological characteristics: No data available

Toxic effects: This product is considered as being non-toxic. Use of good industrial hygiene practices is recommended.

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

Acute Toxicity:

Acute Toxicity - Oral: Based on available data, the GHS classification criteria are not met.

Acute Toxicity - Dermal: Based on available data, the GHS classification criteria are not met.

Acute Toxicity - Inhalation: Based on available data, the GHS classification criteria are not met.

Skin Corrosion / Irritation: Low order of toxicity. Unlikely to cause harmful effects under recommended conditions of handling and use.

Eye Damage / Irritation: Based on available data, the GHS classification criteria are not met.

Respiratory Sensitization: Based on available data, the GHS classification criteria are not met.

Skin Sensitization: Based on available data, the GHS classification criteria are not met.

Germ Cell Mutagenicity: Based on available data, the GHS classification criteria are not met.

Reproductive Toxicity: Based on available data, the GHS classification criteria are not met.

Carcinogenicity: Based on available data, the GHS classification criteria are not met.

STOT - single exposure: Based on available data, the GHS classification criteria are not met.

STOT - repeated exposure: Based on available data, the GHS classification criteria are not met.

Aspiration hazard: Based on available data, the GHS classification criteria are not met.

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

There is no known toxicity data available for the components or the product.

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.

Component toxicity data:

Chemical Name	CAS #	Aquatic LC50 Fish	Aquatic ERC50 Algae	Aquatic EC50 Crustacea
No data 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

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: 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.

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

Toxic Inhalation Hazard Zone: No data available

Environmental hazards (e.g., Marine pollutant (Yes/No)): No data available

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): No data available

Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises: Consult IMO regulations before transporting in bulk by ocean.



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15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

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 21CFR172.892.

SARA - Section 313 (Superfund Amendments and Reauthorization Act of 1986 - 40CFR 372)

Chemical Name	CAS #	Concentration (% by weight)
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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.

Chemical Name	CAS #
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None reportable

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

Date of SDS preparation or last revision (mm-dd-yyyy): 12-22-2022

For product information, contact: For product information, contact:
Ingredion Incorporated Customer Service: 1-800-713-0208

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