

## Section 1 - Identification

### Product identifier:

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

### Details of manufacturer or importer:

National Starch Pty Ltd  
New Zealand Branch  
Unit 5, 706 Great South Road  
Penrose Auckland 1642  
New Zealand  
Tel: +64 9 582 0284 (business hours)

### Emergency phone number:

CHEMTREC - Emergency Telephone (Medical & Transport Incident With Product- 7Days/24 Hours)  
The global (outside US) number: +1 703-741-5970  
Australia: +(61)-290372994  
China: 4001-204937  
India: 000-800-100-7141\*  
Indonesia: 001-803-017-9114\*  
Japan: +(81)-3-4520-9637  
Malaysia: +(60)-392125794  
New Zealand: +(64)-98010034  
Philippines: +(63) 2-395-3308, 1-800-1-322-0553\*  
Singapore: +(65)-31638374, 800-101-2201\*  
South Korea: +(82) 070-7686-0086, 080-880-0454\*  
Taiwan: +886-2-7741-4207\*, 00801-49-1821\*  
Thailand: 1800014808\*  
Vietnam: +(84)-444581938  
\* Phone numbers for countries marked with an asterisk must be dialed within the country  
SDS Requests and general information, please contact Local Customer Service: See phone numbers in Section 16

**Classification of the hazardous chemical:****GHS Hazard Symbols:**

No hazard symbols required

**GHS Classification:**

Hazardous to the aquatic environment - Acute Category 3

**Signal Word:**

No signal word needed.

**Hazard Statements:**

H402 - Harmful to aquatic life.

**Precautionary Statements:****Prevention:**

P273 - Avoid release to the environment.

**Disposal:**

P501 - Dispose of contents/container to a suitable disposal site in accordance with the Hazardous Substances (Disposal) Regulations 2001.

**Hazards not otherwise classified:**

None known.

**Section 3 - Composition/information on ingredients****Substance:**

Not applicable

**Mixture:**

Chemical Name	Common name and synonyms	CAS No.	Concentration (% by weight)
No hazardous components.			

**Section 4 - First-aid measures****Description of necessary first aid measures:**

## 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 and effects, acute and delayed, caused by exposure:**

Possible physical irritant from dust particles. Potential for dust explosion.

**Medical attention and special treatment:**

No further first aid information is available.

## Section 5 - Fire-fighting measures

**Suitable extinguishing equipment:**

Suitable extinguishing media: Dry Chemical, Carbon dioxide, Water Fog, Foam

Unsuitable extinguishing media: None known.

**Specific hazards arising from the chemical:**

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.

## Section 6 - Accidental release measures

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment as required.

**Environmental precautions:**

No data available

**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.

## Section 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.

Static Sensitivity: 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

<b>Section 8 - Exposure controls/Personal protection</b>
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**Exposure control measures:**

Chemical Name	New Zealand - Occupational Exposure Standards - TWA	New Zealand - Occupational Exposure Standards - STEL	New Zealand - Occupational Exposure Standards - CEIL	New Zealand - Biological Exposure Limit - BEL
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>.

**Engineering controls:** General.

**Individual protection measures, for example personal protective equipment (PPE):**

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

**Eye and face protection:** Safety glasses recommended.

**Skin protection:** Skin protection may be required depending on product temperature.

**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.

<b>Section 9 - Physical and chemical properties</b>
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**Appearance (physical state, colour etc.):**

Pure Substance or Mixture: Pure

Physical State: Powder

Colour: White

**Odour:** Starch

**Odour Threshold:** Not available

**pH:** Not available

**pH in (1%) Solution:** Approximately 6

**Melting point/freezing point:**

Melting Point: Not available

Freezing point: Not available

**Initial boiling point and boiling range:** Not available

**Flash Point:** 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

**Vapour pressure:** Not available

**Vapour density:** Not available

**Relative density:** 1.5

**Solubility:** Soluble in water

**Partition coefficient: n-octanol/water:** Not available

**Auto-ignition temperature:** Not available

**Decomposition temperature:** Not available

**Kinematic viscosity:** Not applicable

**Particle Characteristics:** Not applicable

## Section 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:** 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.

## Section 11 - Toxicological information

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

**Information on possible routes of exposure:** Ingestion, Inhalation, Skin Contact, Eye Contact

**Target Organs Potentially Affected By Exposure:** Not applicable.

**Early onset symptoms related to exposure:** No data available

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

**Exposure levels and health effects:**

**Acute toxicity:**

Ingestion Toxicity: 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.

<b>Inhalation Toxicity:</b>	Based on available data, the GHS classification criteria are not met.
<b>Skin corrosion/irritation:</b>	Low order of toxicity. Unlikely to cause harmful effects under recommended conditions of handling and use.
<b>Serious eye damage/irritation:</b>	Based on available data, the GHS classification criteria are not met.
<b>Respiratory sensitisation:</b>	Based on available data, the GHS classification criteria are not met.
<b>Skin sensitisation:</b>	Based on available data, the GHS classification criteria are not met.
<b>Germ cell mutagenicity:</b>	Based on available data, the GHS classification criteria are not met.
<b>Carcinogenicity:</b>	No.
<b>Reproductive Toxicity:</b>	Based on available data, the GHS classification criteria are not met.
<b>Specific Target Organ Toxicity (STOT)-single exposure:</b>	Based on available data, the GHS classification criteria are not met.
<b>Specific Target Organ Toxicity (STOT) -repeated exposure:</b>	Based on available data, the GHS classification criteria are not met.
<b>Aspiration hazard:</b>	Based on available data, the GHS classification criteria are not met.

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
There is no known toxicity data available for the components or the product.			

**Section 12 - Ecological information**

**Ecotoxicity:** No information available.

**Ecological Toxicity Data:**

Chemical Name	CAS No.	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:** None known.

**Section 13 - Disposal considerations**

**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.

<b>Section 14 - Transport information</b>
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**UN number:** Not applicable

**UN Proper shipping name:** Not applicable

**UN dangerous goods class and subsidiary:** Not applicable

**UN Packing group:** Not applicable

**Toxic Inhalation Hazard Zone:** No data available

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

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

**HAZCHEM Code:** No data available

**Special precautions for user:** Consult IMO regulations before transporting in bulk by ocean.

<b>Section 15 - Regulatory information</b>
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**Safety, health and environmental regulations:**

**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

**New Zealand - GHS Classifications - HSNO Chemical Classification Information Database (CCID)**

Chemical Name	CAS No.	New Zealand - GHS Classifications - HSNO Chemical Classification Information Database (CCID)
No data available		

**New Zealand Inventory of Chemicals (NZIOC)**

Chemical Name	CAS No.	New Zealand Inventory of Chemicals (NZIOC)
No data available		

**New Zealand - Priority List of Hazardous Substances**

Chemical Name	CAS No.	New Zealand - Priority List of Hazardous Substances
No data available		

**Montreal Protocol on Substances that Deplete the Ozone Layer**

Chemical Name	CAS No.	Montreal Protocol on Substances that Deplete the Ozone Layer
No data available		

**Stockholm Convention on Persistent Organic Pollutants**

Chemical Name	CAS No.	Stockholm Convention on Persistent Organic Pollutants
No data available		

**Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**

Chemical Name	CAS No.	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
No data available		

**Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**

Chemical Name	CAS No.	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
No data available		

**Section 16: Other information**

**Revision Date:** 08-06-2024  
**Supersedes:** 08-04-2023  
**Revision Number:** 6  
**Reason for revision:** New



**Key abbreviations or acronyms used:** CAS = Chemical Abstract Service  
DNEL= Derivative No Effect Level  
EC= European Community  
EINECS = European Inventory of Existing Chemical Substances  
MSHA = Mine Safety Health Administration  
NIOSH = National Institute of Occupational Safety & Health  
OEL = Occupational Exposure Limit  
PBT= Persistent, Bioaccumulative, Toxic  
PNEC= Predicted No Effect Concentration  
SCOEL= Scientific Committee on Occupational Exposure Limits  
TLV = Threshold Limit Value  
TWA= Time Weighted Average  
vPvB= Very Persistent, Very Bioaccumulative  
Wt.% = Weight Percent

**For Information Contact:** New Zealand: Ingredion ANZ Pty Ltd  
Customer Service : +64-9-5820284 (Business Hours)

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