

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Product Number: 12151301
Product Name: NATIONAL 104

Other means of identification:

Chemical family: Modified starch
REACH Registration Number:

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified use: Food products
Uses advised against: Not Available

1.3 Details of the supplier of the safety data sheet:

Ingredion India Pvt Ltd
Unit no 1502E, 15th Floor, Rupa Renaissance,
Plot no D-33, D207 Juinagar MIDC Road,
TTC Industrial Area, Navi Mumbai 400705
Maharashtra, India
Tel: +91 22 6820 0600 (business hours)

1.4 Emergency telephone 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

Authorised Representative for REACH Registration:

No data available

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to GHS Regulation: Not classified as hazardous in accordance with GHS Regulation.

2.2 Label elements:

Hazard pictograms: No hazard symbols required

Signal word: No signal word needed.

Hazard statements: No Hazard Statement needed.

Precautionary statements: No Precautionary Statement needed.

Supplemental Hazard information (EU): No Supplemental Hazard Information available

2.3 Other hazards: None known.

SECTION 3: Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

| Substance Name | Concentration (% by weight) | CAS No. | REACH Registration Number |
|--------------------------|-----------------------------|---------|---------------------------|
| No hazardous components. | | | |

SECTION 4: First aid measures

4.1 Description of 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.

Self protection of the first aider: No data available

4.2 Most important symptoms and effects, both acute and delayed:

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

4.3 Indication of any immediate medical attention and special treatment needed:

No further first aid information is available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

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

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture:

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.

5.3 Advice for firefighters:

No special procedures are required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Non-emergency personnel:

Emergency responders: Use personal protective equipment as required.

6.2 Environmental precautions:

Not available

6.3 Methods and material 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.

6.4 Reference to other sections:

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

As with all chemicals, good industrial hygiene practices should be followed when handling this material.

7.2 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

7.3 Specific end use(s):

Food products

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

| Substance Name | India - Permissible Exposure Limits - TWAs | India - Permissible Exposure Limits - STELs | India - Permissible Exposure Limits - CEILs |
|-------------------|--------------------------------------------|---------------------------------------------|---------------------------------------------|
| No data available | | | |

This product can produce a nuisance dust which should be maintained below a time weighted average of 10 mg/m³.

DNEL: None known.

PNEC: None known.

8.2 Exposure controls:

Appropriate engineering controls: General.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses recommended.

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

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

Respiratory protection: NIOSH approved dust mask.

Thermal hazards: Not available

Environmental exposure controls:

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

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

Boiling point or initial boiling point and boiling range: Not available

| | |
|-----------------------------------------------------------|------------------|
| Flash point: | Not applicable |
| Evaporation Rate: | Not applicable |
| Flammability: | 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 |
| Density and/or relative density: | 1.5 |
| Solubility: | Soluble in water |
| Partition coefficient n-octanol/water (log value): | Not available |
| Auto-ignition temperature: | Not available |
| Decomposition temperature: | Not available |
| Viscosity: | Not applicable |
| Volatiles: | None |
| Volatile Organic Chemicals: | Not applicable |
| Kinematic viscosity: | Not available |
| Particle characteristics: | Not applicable |
| 9.2 Other information: | |
| Molecular Weight: | > 10000 |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 10.1 Reactivity: | Not expected to be reactive. |
| 10.2 Chemical stability: | Stable |
| 10.3 Possibility of hazardous reactions: | Hazardous polymerization will not occur. |
| 10.4 Conditions to avoid: | None known |
| 10.5 Incompatible materials: | None known |
| 10.6 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

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

| | |
|----------------------------------------------------|--------------------------------------------------|
| Information on possible routes of exposure: | Ingestion, Inhalation, Skin Contact, Eye Contact |
| Target Organs Potentially Affected By | Not applicable. |

Exposure:

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.

Inhalation Toxicity: 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.

Serious eye damage/irritation: Based on available data, the GHS classification criteria are not met.

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

Skin sensitisation: 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: No.

Specific Target Organ Toxicity (STOT)-single exposure: Based on available data, the GHS classification criteria are not met.

Specific Target Organ Toxicity (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):

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

SECTION 12: Ecological information

12.1 Toxicity: No information available.

Ecological Toxicity Data:

| Substance Name | CAS No. | Aquatic LC50 Fish | Aquatic ERC50 Algae | Aquatic EC50 Crustacea |
|-------------------|---------|-------------------|---------------------|------------------------|
| No data available | | | | |

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: Unknown

12.5 Results of PBT and vPvB assessment:

12.6 Endocrine disrupting properties: None known.

12.7 Other adverse effects: None known.

SECTION 13: Disposal considerations

13.1 Waste treatment 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.

SECTION 14: Transport Information

DOT Classification: Not regulated

14.1 UN number: Not applicable

14.2 UN proper shipping name: Not applicable

14.3 Transport hazard class(es): Not applicable

14.4 Packing group: Not applicable

Toxic Inhalation Hazard Zone: No data available

14.5. Environmental hazards: No data available

14.6 Maritime transport in bulk according to IMO instruments: No data available

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

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

India - Ozone Depleting Substances - Schedule I:

| Substance Name | CAS No. | India - Ozone Depleting Substances - Schedule I |
|-------------------|---------|-------------------------------------------------|
| No data available | | |

India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals:

| Substance Name | CAS No. | India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals |
|-------------------|---------|--------------------------------------------------------------------------|
| No data available | | |

SECTION 16: Other information

Revision Date: 08-06-2024
Supersedes: 08-04-2023
Revision Number: 5
Reason for revision: New
For Information Contact India:
 INGREDION INDIA PVT LTD
 Customer Service: +91 22 6820 0600
Hazard statements: No Hazard Statement needed.
Precautionary statements: No Precautionary Statement needed.

Disclaimer:

The attached data has been compiled from sources which Ingredion Incorporated and the Ingredion group of companies, believe to be dependable and, to our knowledge and belief is accurate. However, Ingredion Incorporated and the Ingredion group of companies cannot make any warranty or representation respecting the accuracy or completeness of the data. We assume no responsibility for any liability or damages relating thereto, or for advising you regarding the protection of your employees, customers, or others. You should make your own tests to determine the applicability of such information to, or the suitability of any products for your specific use. Ingredion Incorporated and the Ingredion group of companies expressly disclaims all warranties, expressed or implied, including but not limited to, warranties of merchantability, accuracy, fitness for use or for a particular purpose, and noninfringement. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to sales of products by Ingredion Incorporated and the Ingredion group of companies. The INGREDION mark and logo are trademarks of the Ingredion group of companies.