



SAFETY DATA SHEET

NATIONAL 77-1760

1. Identification

Product identifier: NATIONAL 77-1760

Other means of identification:

Chemical family: Modified Starch

Recommended use of chemical and restrictions on use:

Recommended use: Food products

Restrictions on use: Not Available

Supplier's details (including name, address, and telephone number etc.):

SUPPLIER

Ingredion Singapore Pte Ltd.

21 Biopolis Road

#05-21/27 Nucleos

Singapore 138567

Tel: +65 6872 6006 (business hours)

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

Hong Kong: 800-968-793*

India: 000-800-100-7141*

Indonesia: 001-803-017-9114*

Japan: +(81)-3-4520-9637

Malaysia: +(60)-392125794, 1-800-815-308*

New Zealand: +(64)-98010034

Philippines: +(63) 2-395-3308, 1-800-1-116-1020*

Singapore: +(65)-31581349, 800-101-2201*

South Korea: +(82) 070-7686-0086, 00-308-13-
2549*

Taiwan: +886-2-7741-4207*, 00801-14-8954*

Thailand: 001-800-13-203-9987*

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

2. Hazards identification

GHS Classification of the substance or mixture:

Classification according to Regulation: SS 586: Part 2: 2014: Not classified by GHS criteria

GHS Label elements:**GHS label elements, including precautionary statements:**

Hazard pictograms: No hazard symbols required

Signal Word: No signal word needed.

Hazard Statements: No Hazard Statement needed.

Precautionary Statements: No Precautionary Statement needed.

Other hazards which do not result in classification: None known.

3. Composition/information on ingredients

Substances:

Not applicable

Mixtures:

Chemical Name	CAS No.	%
This product is not classified as hazardous		

4. First-aid measures

Description of necessary measures:

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.

Self protection of the first aider: No data available

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 None known.

needed, if necessary:

5. Fire-fighting measures

Extinguishing media:

Suitable extinguishing media: Dry Chemical, CO₂, 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Non-emergency personnel: Non-emergency personnel should be kept clear of the area

Emergency responders: Use personal protective equipment as required.

Environmental precautions: No data available

Methods and material for containment and cleaning up:

Small spills: Refer to information provided for large spills

Large spills: 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.

Reference to other sections: See Section 8 for appropriate personal protective equipment. See Sections 2 and 7 for additional information on hazards and precautionary measures.

7. Handling and storage

Precautions for safe handling: Normal precautions for handling chemicals are applicable.

Conditions for safe storage, including any incompatibilities:

Conditions for safe storage:

Special Sensitivity: Not available

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: None known
Materials to Avoid/Chemical Incompatibility: No data available
Specific end use(s): Food products

8. Exposure controls/personal protection

Control parameters/ Occupational exposure limits or biological limit values:

Occupational Exposure limit values:

Chemical Name	Singapore - Occupational Exposure Limits - STELs	Singapore - Biological Exposure Limits
Not listed.		

Exposure controls:

Appropriate engineering controls: No data available

Individual protection measures, such as personal protective equipment:

Eye and face protection: Safety glasses recommended.

Skin Protection:

Hand protection: No data available

Other skin protection: Not applicable. Uniforms, coveralls, or a lab coat should be worn.

Respiratory Protection: No data available

Respirator Type(s): NIOSH approved dust mask.

Other Protective Equipment: Wash before eating, drinking, or using toilet facilities.

General Hygiene Conditions: Not normally required.

Thermal Hazards: Not available

Environmental exposure controls: Avoid runoff into storm sewers and ditches that lead to waterways.

9. Physical and chemical properties

Information on basic physical and chemical properties:

Appearance (physical state, color etc.): Powder.
Colour: White
Odour: Starch
Odour threshold: Not available
pH: Not available
pH in (1%) Solution: Approximately 6

Melting point / freezing point (°C):

Melting point (°C): Not available
Freezing point (°C): No data available

Initial boiling point and boiling range (°C): No data available

Flash point (°C): No data available
Flash point method: Not available

Evaporation rate: Not applicable

Flammability (solid, gas): Not available

Upper/lower flammability or explosive limits:

Upper flammable or explosive limit, % in air: Not available

Lower flammable or explosive limit, % in air: Not available

Vapour pressure: Not available

Vapour density: Not available

Relative density: 1.5000000

Solubility(ies): Soluble in water

Partition coefficient: n-octanol/water: Not available

Auto-ignition temperature (°C): No data available

Decomposition temperature (°C): Not available

Viscosity: Not available

Other information:

Heat of decomposition: Not available

Volatiles by weight: Not available

Volatile Organic Chemicals: Not available

Molecular formula: Not available

Molecular weight: > 10000

Liquid density: Not available

VOC (as applied*- 2% by wt hardener-less exempts and water): NAP or

Bulk density: Not available

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) None known.

discharge, shock or vibration):

Incompatible materials: No data available

Hazardous decomposition products: This product does not undergo spontaneous decomposition. Typical combustion products are carbon monoxide, carbon dioxide, nitrogen and water.

11. Toxicological information

Information on toxicological effects:

Acute toxicity:

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
No data available			

Skin corrosion/irritation:

Based on available data, the GHS classification criteria are not met.
 Unlikely to cause harmful effects under recommended conditions of handling and use.
 Low order of toxicity.

Serious eye damage/irritation:

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

Respiratory or 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.

Carcinogenicity:

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

Reproductive and Developmental Toxicity:

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.

12. Ecological information

Toxicity: No data available

Ecological Toxicity Data:

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

Persistence and degradability:

Bioaccumulative potential: No data available

Mobility in soil: Unknown

Other adverse effects: None known.

Additional information: No data available

13. Disposal considerations

Waste treatment methods:

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.

14. Transport information

International carriage of dangerous goods by road (ADR), rail or inland waterways:

UN number: No data available

UN proper shipping name: Not applicable

Transport hazard class(es): Not Applicable

Packing group: Not applicable

International carriage of dangerous goods by sea (IMDG/IMO):

UN number: No data available

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

International carriage of dangerous goods by air (IATA):

UN number: No data available

UN proper shipping name: Not Applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards (e.g.: Marine pollutant (Yes/No)): Not available

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

Transport in bulk (according to ANNEX II of MARPOL 73/78 and the IBC Code): Not available

15. Regulatory information

TSCA 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.

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

Chemical Name	CAS No	Singapore Arms and Explosives Act	Singapore List of Hazardous Substances	Singapore Chemical Weapons	Singapore Workplace Safety Act	Singapore Environmental Protection and Management Act
None of the components are listed on this regulatory list						

Chemical Inventory Status:

Chemical Name	CAS No	AICS	DSL	IECSC	ENCS	TSCA Status	EINECS	PICCS
None of the components are listed on this regulatory list								

Singapore - Ozone Depleting Substances:

Chemical Name	CAS No	Annex A - Group I	Annex A - Group II	Annex B - Group I	Annex B - Group II	Annex B - Group III	Annex C - Group I	Annex C - Group II	Annex C - Group III	Annex E

None of the components are listed on this regulatory list										
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Singapore - HAZCHEM Emergency Action Code:

Chemical Name	CAS No	Singapore - HAZCHEM Emergency Action Code
None of the components are listed on this regulatory list		

16. Other information

Revision Date: 31-07-2021
Supercedes: 11-09-2019
Revision Number: 8
Reason for revision: New

FOR INFORMATION CONTACT: Singapore:
 Ingredion Singapore Pte Ltd
 Customer Service: +65 6872 6006

Abbreviations and acronyms: 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



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Wt.% = Weight Percent

Prevention:

No Precautionary Statement needed.

Disclaimer:

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