

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier: N-DULGE(R) 333

Other means of identification:

Chemical family: Modified Starch

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

Relevant identified uses: Food products

Uses advised against: Not Available

1.3 Details of the Supplier of the Safety Data Sheet:

SUPPLIER

INGREDION INDIA PVT LTD.
1605, 16th Floor, Rupa Solitaire,
Millennium Business Park, Mahape,
Thane Belapur Road, Navi Mumbai - 400710,
Maharashtra, India
Tel: +91 22 6820 0600 (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

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 [CLP]: Not classified as hazardous in accordance with GHS Regulation.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008 [CLP]:

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): None known.

Hazards not otherwise classified:

DUST: None known.

EYE: Particulates may scratch eye surfaces and cause mechanical irritation.

SKIN CONTACT: Low order of toxicity.

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

INGESTION: Low oral toxicity.

3. Composition/information on ingredients

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical Name	CAS #	%
No hazardous components.		

For full text of H-statements see Section 16

4. First aid measures

4.1 Description of first aid 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

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: None known.

5. Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:	Dry Chemical, CO ₂ , 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. 80 mg/l. Minimum energy to ignite cloud by electrical spark- approx. 0.10 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.

6. Accidental release measures

6.1 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.

6.2 Environmental precautions: No data available

6.3 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.

6.4 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

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

7.2 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/Chemical Incompatibility: No data available

7.3 Specific end use(s): Food products

8. Exposure controls/personal protection

8.1 Control parameters:

Occupational Exposure limit values:

Chemical Name	INDIA - Occupational Exposure Limits - TWAs	INDIA - Occupational Exposure Limits - STELs	INDIA - Occupational Exposure Limits - Ceilings	INDIA - Biological Exposure Limits
Not listed.				

DNEL: None known.

PNEC: None known.

8.2 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: The use of chemically resistant gloves is recommended.

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

9.1 Information on basic physical and chemical properties:

Appearance:	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 (°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 (water = 1):	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
Vapor Density (Air=1):	Not available
Relative density:	1.5000000
Solubility(ies):	Insoluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature (°C):	No data available
Decomposition temperature (°C):	Not available
Viscosity:	Not available
Explosive properties:	Not available

Oxidizing properties: Not available

9.2 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

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: No data available

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

11. Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:

Chemical Name	ORAL LD50 (rat)	DERMAL LD50 (rabbit)	INHALATION LC50 (rat)
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:



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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 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

12.1 Toxicity:

Low toxicity to aquatic organisms.

Ecological Toxicity Data:

Chemical Name	CAS #	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
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:**

Not applicable

12.6 Other adverse effects:

None known.

12.7 Additional information:

No data available

13. Disposal considerations

13.1 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:

- 14.1. UN number: No data available
- 14.2. UN proper shipping name: Not applicable
- 14.3. Transport hazard class(es): Not Applicable
- 14.4. Packing group: Not applicable

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

- 14.1. UN number: No data available
- 14.2. UN proper shipping name: Not applicable
- 14.3. Transport hazard class(es): Not applicable
- 14.4. Packing group: Not applicable

International carriage of dangerous goods by air (IATA):

- 14.1. UN number: No data available
- 14.2. UN proper shipping name: Not Applicable
- 14.3. Transport hazard class(es): Not applicable
- 14.4. Packing group: Not applicable
- 14.5. Environmental hazards: Not available
- 14.6. Special precautions for user: Consult IMO regulations before transporting in bulk by ocean.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: Not available

15. Regulatory information

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

- 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.

Chemical Name	Ozone Depleting Substances Schedule	Hazardous Chemical Rules List of Hazardous
None of the components are listed on this regulatory list		

16. Other information

Revision Date: 31-07-2021
Supercedes: 30-07-2019
Revision Number: 3
Reason for revision: New

FOR INFORMATION CONTACT: India:
 INGREDION INDIA PVT LTD.
 Customer Service: +91 22 6820 0600

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
- Wt.% = Weight Percent

Hazard phrase(s) referenced in section 3: No data available

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Not available	

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