

## 1. Identification

### Product identifier:

Product Number: 70000383  
Product Name: FARMAL(TM) AF 1100  
starch

### Other means of identification:

Chemical family: Modified starch

### Recommended use of chemical and restrictions on use:

Recommended use: Personal Care  
Restrictions on use: Not Available

### Supplier's details:

Ingredion Singapore Pte Ltd.  
21 Biopolis Road  
#05-21/27 Nucleos  
Singapore 138567  
Tel:+65 6872 6006 (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 according to Regulation: SS 586: Part 2: 2014:

**Hazard pictograms:** No hazard symbols required

**GHS Classification of the substance or mixture:** Not classified by GHS criteria

**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.

**% unknown toxicity (Oral):** 100 % of the mixture consists of ingredients of unknown toxicity

**% unknown toxicity (Dermal):** 100 % of the mixture consists of ingredients of unknown toxicity

### 3. Composition/information on ingredients

| Chemical Name                | CAS No. | Concentration (% by weight) |
|------------------------------|---------|-----------------------------|
| 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: 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. If symptoms develop, obtain medical attention.

Ingestion: Treat symptomatically and supportively. Get medical attention.

**Description of acute and delayed symptoms/effects:** 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

### Extinguishing media:

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. 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.

### Special protective equipment for fire-fighters:

No special procedures are required.

## 6. Accidental release measures

### Personal precautions, protective equipment, emergency procedures:

Use personal protective equipment as required.

### Environmental precautions:

No data available

### 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.

## 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:

Conditions for safe storage: All handling equipment must be properly grounded. Mechanical handling of the powder on inadequately grounded equipment can result in static electrical discharges. Store in a cool, dry area away from heat, sparks or fire.

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

## 8. Exposure controls/personal protection

**Control parameters/ Occupational exposure limits or biological limit values:**

| Chemical Name     | Singapore - Occupational Exposure Limits - PELs | Singapore - Occupational Exposure Limits - STELs | Singapore - Biological Exposure Limits |
|-------------------|---|--|--|
| 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>.

- Appropriate engineering controls:** General.
- Individual protection measures:**
- Respiratory Protection:** NIOSH approved dust mask.
- Eye and face protection:** Wear safety glasses with side shields. Protect against dust and particulates.
- Skin protection:** Employee must wear appropriate protective gloves to prevent contact with this substance.
- Gloves:** The use of chemically resistant gloves is recommended.
- Other protective equipment:** Remove contaminated clothing and launder before reuse. Uniforms, coveralls, or a lab coat should be worn.
- General hygiene conditions:** Wash before eating, drinking, or using toilet facilities.

## 9. Physical and chemical properties

**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
- 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

**Vapour pressure:** Not available

**Vapour density:** Not available

**Relative density:** 1.5

**Solubility:** Insoluble

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

**Auto-ignition temperature:** Not available

**Decomposition temperature:** Not available

**Viscosity:** Not applicable

**Volatiles:** None

**Volatile Organic Chemicals:** 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:** 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 possible routes of exposure:** Ingestion, Inhalation, Skin Contact, Eye Contact

**Target Organs Potentially Affected By Exposure:** None known.

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

**Toxic Effects:** The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not ingest or inhale.

**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:**

If symptoms develop, obtain medical attention. Repeated or prolonged skin contact may result in mild irritation. The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not ingest or inhale.

**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):**

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

**12. Ecological information**

**Eco-toxicity:** 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.

**13. Disposal considerations**

**Description of waste residues and information on their safe handling and methods of disposal:** Disposal should be in accordance with local, state or national legislation.

**14. Transport information**

**DOT Classification:**  
**UN number:** Not applicable  
**Proper shipping name or technical name:** Not regulated.  
**Transport hazard class:** Not applicable  
**Packing group:** Not applicable  
**Toxic Inhalation Hazard Zone:** No data available  
  
**Environmental hazards for transport purposes:** No data available  
**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** No data available  
**Special precautions for user:** Consult IMO regulations before transporting in bulk by ocean.

**15. Regulatory information**

**Safety, health and environmental regulations:**

**TSCA Status:** This material is not on the TSCA Inventory. It is excluded under the Food, Drug, and Cosmetic Act.  
**FDA** Cosmetic ingredient

**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 |         |   |

**Singapore List of Hazardous Substances**

| Chemical Name     | CAS No. | Singapore List of Hazardous Substances |
|-------------------|---------|--|
| No data available |         |  |

**Singapore - HAZCHEM Emergency Action Code(Commonwealth)**

| Chemical Name     | CAS No. | Singapore - HAZCHEM Emergency Action Code(Commonwealth) |
|-------------------|---------|---|
| No data available |         |   |

**16. Other information**

**Revision Date:** 08-06-2024

**Supersedes:** 02-24-2023

**Revision Number:** 5

**Reason for revision:** New

**For Information Contact:** Singapore:  
Ingredion Singapore Pte Ltd.



**Hazard Statements:**

Customer Service: +65 6872 6006

No Hazard Statement needed.

**Precautionary Statements:**

No Precautionary Statement needed.

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